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# RESEARCH MEMORANDUM

EFFECTS OF SPOILER AILERONS ON THE AERODYNAMIC LOAD

DISTRIBUTION OVER A 45° SWEPTBACK WING AT

MACH NUMBERS FROM 0.60 TO 1.03

By Joseph M. Hallissy, Jr., F. E. West, Jr.,  
and George Liner

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**NATIONAL ADVISORY COMMITTEE  
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WASHINGTON

May 14, 1954

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## NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

## RESEARCH MEMORANDUM

## EFFECTS OF SPOILER AILERONS ON THE AERODYNAMIC LOAD

DISTRIBUTION OVER A  $45^\circ$  SWEPTBACK WING AT

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## SUMMARY

An investigation was conducted with 73-percent-semispan inboard spoiler ailerons, projecting 4 percent of the local chord from the wing surface, and located at the 70-percent-chord line of a  $45^\circ$  sweptback-wing-fuselage combination. The model consisted of a wing with an aspect ratio of 3.98, taper ratio of 0.61, and NACA 65A006 airfoil sections parallel to the plane of symmetry in combination with a fuselage of fineness ratio 10. Pressure data were measured on the wing and spoiler at several spanwise stations at Mach numbers from 0.60 (Reynolds number  $5.1 \times 10^6$ ) to 1.03 (Reynolds number  $6.2 \times 10^6$ ) for angles of attack that usually extended to  $20^\circ$  or more.

Upper-surface spoilers resulted in normal-force decrements which were largest in the 0.6 to 0.8 semispan area of the wing for low and moderate angles of attack. Most of this decrement was associated with increased upper-surface pressures ahead of the spoiler, but some of the decrement resulted from decreased lower-surface pressures. The addition of a gap through the wing behind the spoiler relieved the low pressure behind the spoiler on the upper surface and thus increased the rolling effectiveness. Lower-surface spoilers give reversed rolling-moment effectiveness at angles of attack higher than about  $10^\circ$  primarily because there is a large decrease in pressure behind the spoiler on the lower wing surface at the higher angles of attack.

Spoiler loads were highest at the inboard end. For upper-surface spoilers, the loads on the spoiler decreased rapidly with increasing angle of attack, but for lower-surface spoilers they increased to the highest test angles of attack.

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## INTRODUCTION

Recently there has been considerable interest in spoiler ailerons, primarily because they maintain rolling effectiveness through the transonic speed range (ref. 1) and because they provide high reversal speeds for thin flexible wings. In addition, they can be designed to have very low hinge moments. However, very few pressure data for spoiler configurations have been available at high subsonic and transonic speeds (refs. 2 and 3) for load calculations or for studying the effects of spoilers on the flow about a wing.

Hence, a systematic test program has been initiated in the Langley 16-foot transonic tunnel to provide pressure data for various spoiler configurations in the transonic speed range at moderately high Reynolds numbers for a large angle-of-attack range. The initial investigation of this program was conducted on a 6-percent-thick  $45^\circ$  sweptback-wing-fuselage combination at  $0^\circ$  yaw and Mach numbers from 0.60 to 1.03. The spoilers investigated on this wing were of the retractable type, and they extended along the 70-percent-chord line from the fuselage (14 percent of the wing semispan) to 87 percent of the wing semispan and had a projection from the wing surface of 4 percent of the local wing chord.

This paper presents results for some of the configurations that were tested during the initial investigation. The effects of upper- and lower-surface spoilers and of a wing gap behind the spoilers are shown on the wing normal-force characteristics, chordwise pressure distributions, span-load distributions, and centers of load. Also included are tabulated wing static-pressure coefficients, spoiler pressure distributions, and spoiler span-load distributions. A limited amount of summary data from this investigation has already been published (ref. 4), and six-component force data obtained simultaneously with the pressure data are presented in reference 5.

## SYMBOLS

b	wing span
c	section wing chord
$\bar{c}$	average wing chord
$c'$	wing mean aerodynamic chord

$c_m \frac{c^2}{c'}$  wing-section pitching-moment parameter with moment about the 25-percent position of the mean aerodynamic chord,

$$\frac{c^2}{c' c'} \int_0^1 (P_L - P_U) \left( \frac{x_1}{c} - \frac{x}{c} \right) d\frac{x}{c}$$

$c_n \frac{c}{c'}$  wing-section normal-load parameter,

$$\frac{c}{c'} \int_0^1 (P_L - P_U) d\frac{x}{c}$$

$c_{ns} \frac{h}{h}$  spoiler-section load parameter which acts parallel to plane of symmetry and perpendicular to  $h$  at a given spanwise station,

$$\frac{h}{h} \int_0^1 (P_F - P_R) d\frac{z}{h}$$

$C_N$  wing-panel normal-force coefficient,

$$\int_{0.135}^{1.0} c_n \frac{c}{c'} d\frac{y}{b/2}$$

$C_l$  rolling-moment coefficient

$h$  length of chord of exposed front face of spoiler at any spanwise station

$\bar{h}$  average  $h$ ,  $\frac{(h \text{ at } 0.14b/2) + (h \text{ at } 0.87b/2)}{2}$

$M$  free-stream Mach number

$P$  pressure coefficient,  $\frac{P - P_0}{q}$

$p$  local static pressure

$p_0$  free-stream static pressure

$q$  free-stream dynamic pressure

$x$  distance from wing leading edge at a given spanwise station, positive downstream

$x_l$  distance from wing leading edge at a given spanwise station to line perpendicular to plane of symmetry and passing through 25-percent position of mean aerodynamic chord, positive downstream

$\frac{x_{cp}}{c}$  longitudinal location of wing-section center of pressure,  

$$0.25 - \frac{\int_0^1 (P_L - P_U) \left(0.25 - \frac{x}{c}\right) d\frac{x}{c}}{c_n},$$
 fraction of section wing chord

$\frac{x_{cp}}{c'}$  longitudinal location of wing-panel center of pressure,  

$$0.25 - \frac{\int_{0.135}^{1.0} \left(c_m \frac{c^2}{cc'}\right) d\frac{y}{b/2}}{C_N},$$
 fraction of mean aerodynamic chord

$y$  spanwise distance from the plane of symmetry

$\frac{y_{cp}}{b/2}$  lateral location of wing-panel center of pressure,  

$$\frac{\int_{0.135}^{1.0} \left(c_n \frac{c}{c'}\right) \left(\frac{y}{b/2}\right) d\frac{y}{b/2}}{C_N},$$
 fraction of semispan

$z$  distance measured from wing surface along  $h$  at a given spanwise station (not perpendicular to  $x$ - and  $y$ -axes)

$\alpha$  angle of attack of fuselage center line relative to test-section center line

$\Delta P$  change in  $P$  across spoiler at a given spanwise station ( $P$  at  $0.65c$  -  $P$  at  $0.75c$ )

#### Subscripts:

$F$  forward surface of spoiler

$L$  lower surface of wing

$R$  rear surface of spoiler

$U$  upper surface of wing

## APPARATUS AND TESTS

Tunnel.- The investigation was conducted in the Langley 16-foot transonic tunnel, which is a single-return wind tunnel having a slotted throat of octagonal cross section. The maximum variation of average Mach number was about  $\pm 0.002$  along the test-section center line in the vicinity of the model. Additional details of the test-section configuration and of the calibration of the tunnel are given in reference 6.

Model.- Figures 1 and 2 show details of the basic model and the spoiler configurations included in this investigation. The steel wing had NACA 65A006 airfoil sections parallel to the plane of symmetry, quarter-chord line sweep of  $45^\circ$ , taper ratio of 0.61, and aspect ratio of 3.98. The wing was designed to have no incidence, dihedral, or twist and was mounted in a midwing position on the fuselage. The fuselage, constructed of steel, had a fineness ratio of 10, and the quarter chord of the wing mean aerodynamic chord was located at the longitudinal position of the maximum fuselage diameter.

The spoilers for these tests (fig. 1) simulated retractable spoiler-aileron configurations pivoted about the 50-percent-chord line. These spoilers were located along the 70-percent-chord line of the wing and were projected four percent of the local wing chord from the wing surface. They extended from the fuselage (14 percent of the wing semispan) to the 87-percent wing semispan and had a sweep angle of  $41.6^\circ$ . Spoilers were tested without and with a gap in the wing behind the spoiler. The gap, when used, extended outboard from the 15-percent to the 87-percent wing semispan station. The lower-surface spoiler with gap configuration was obtained by inverting the model with upper-surface spoiler and wing gap. The oppositely deflected spoiler configuration had one spoiler mounted on the upper surface of the left wing and one on the lower surface of the right wing with no gap behind the spoilers.

Figure 2 shows location of the wing static-pressure orifices which were distributed over the left wing at seven spanwise stations. The orifices at the inboard station (average  $\frac{y}{b/2} = 0.135$ ) were actually located on the fuselage 0.1 inch from the wing surface. Pressure orifices were also located on the front and rear surfaces of the left wing spoiler and in the wing gap behind this spoiler at five spanwise stations as shown in figure 2. The pressures were transmitted by means of small tubing through the model support system to mercury manometer boards.

Model support system.- A cantilever strut, described in reference 7, supported the sting-mounted model. The model was near the tunnel center line at all angles of attack. A straight coupling between the sting and

the model permitted variations in the angle of attack from  $-4^{\circ}$  to  $15^{\circ}$ ; a  $10^{\circ}$  coupling extended the range.

Tests.- Tests were generally made for all configurations at angles of attack of  $-2^{\circ}$  to  $26^{\circ}$  for Mach numbers from 0.60 to 0.90. At Mach numbers from 0.94 to 1.03, the maximum angle of attack of these tests was limited by sting-support stresses or available tunnel power.

The Reynolds number variation over the Mach number range of the tests is shown in figure 3.

#### DATA REDUCTION

Data reduction methods.- Extensive use of a punched-card system greatly facilitated the reduction of data. Pressure data recorded with manometer board cameras were first transferred to cards by the use of a commercially available manual film reading device coupled to a card-punch machine. The data were then processed on electronic computing machines to obtain individual pressure coefficients as well as section normal-force and pitching-moment coefficients (using a rectangular step integration). The data cards were then fed to an automatic plotting device for the preparation of the chordwise pressure plots of this paper and were also used to prepare the tables of pressure data.

Corrections.- The angles of attack presented include an adjustment for an incremental angle determined from static calibration of the model angular deflection as a function of pitching moment and normal-force loads. Based on the repeatability of deflection measurements made during the static calibrations, the estimated maximum error of the angle-of-attack measurements is  $\pm 0.1^{\circ}$ . No corrections were made for tunnel-flow angularity. The cumulative effect of model asymmetry and tunnel flow angularity is shown to be small by the basic model normal-force curves in figure 5. No corrections were made for sting interference. Sting interference was not considered of importance for these tests because all lateral-control configuration changes were made on the wing, which was relatively remote from the sting. The data have not been corrected for tunnel boundary-interference effects since the results of reference 8 indicate that these effects would be small.

In calculating wing section and panel coefficients, the effect of the forces on the spoiler was neglected. The magnitude of the error thus introduced was checked and found to be within the accuracy of the data.

## RESULTS AND DISCUSSION

Static-pressure measurements are given in coefficient form for the basic wing and the several spoiler configurations as follows:

Table	Static-pressure coefficients for -	Page
I	Basic wing	19 to 43
II	Wing with upper-surface spoiler (no gap)	44 to 63
III	Wing with upper-surface spoiler (with gap)	64 to 88
IV	Wing with lower-surface spoiler (with gap)	89 to 104

Each table shows the pressure coefficients at seven spanwise wing stations for various Mach numbers and angles of attack. Some of the high-angle-of-attack data for the upper-surface spoiler without gap and for the lower-surface spoiler with gap have been omitted since these configurations are of less interest because of loss of effectiveness or reversal at high angles of attack. No data have been tabulated for the oppositely deflected spoiler configuration, since, as will be shown, these were only slightly different from the data presented in table II.

In discussing the test results, some of the more important effects of spoiler operation on panel and section characteristics are first noted. Subsequent discussion makes use of chordwise pressure distributions to illustrate the manner in which the various spoiler configurations affect the air flow and the load distribution over the swept wing. Finally, the effect of a lower-surface spoiler on the opposite wing loading is considered and loads on the spoilers are discussed.

In figures which show comparisons at one angle of attack, the angle of attack given is an average for the compared configurations. This average does not differ more than  $\pm 0.15^\circ$  from the extreme value for any of the compared configurations.

#### Effect of Spoiler on Wing-Panel Loading

Since the rolling-moment coefficients produced by the spoiler configurations are given in reference 5, there was no need to integrate the present pressure data for rolling moment. In order to be certain,

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however, that such integrations would indicate the same rolling moments as were measured with the strain-gage balance, integrations have been carried out for a few pressure-data points. A comparison with the balance measurements is made in figure 4. Even though the chordwise pressure force rolling-moment component (about the stability roll axis) has been neglected, as have crossover effects from the left wing to the right wing, agreement between the two sets of data is generally excellent. It is concluded, therefore, that an analysis of the pressure measurements made in these tests will help to provide a correct understanding of the functioning of a spoiler as a lateral control.

Figure 5 shows the variation of integrated wing normal-force coefficient with angle of attack at all test Mach numbers for the basic wing and three spoiler configurations. As in reference 5, the upper-surface spoilers caused decreases in normal-force coefficient which were largest in the region of  $4^\circ$  to  $6^\circ$  and which became small at the higher angles of attack. The presence of a gap through the wing behind the spoiler provided an additional decrement which was more or less constant throughout the angle-of-attack range. The beneficial effect of such a wing gap at transonic speeds has been previously shown. (For example, see ref. 9.) A lower-surface spoiler provided an increase in wing normal force at the lower angles of attack but a reversal was indicated for angles of attack above about  $10^\circ$  as was also shown in reference 5.

The increments in normal-force coefficient in figure 5 caused by operation of the spoiler were about twice the magnitude of the lift-coefficient increments shown on a similar figure in reference 5 for the same configurations. The reason for this effect was that the lift coefficient in reference 5 was based on total wing area, whereas the normal-force coefficient in this report was based on the semispan wing area.

Figures 6 and 7 show, respectively, the longitudinal and lateral locations of wing-panel center of pressure for the basic wing and three spoiler configurations at all test Mach numbers. These curves show discontinuities at some low angle of attack in both longitudinal and lateral center-of-pressure locations. These discontinuities indicate that, for an upper-surface spoiler, there was extensive positive loading inboard and negative loading outboard for the condition of zero panel lift.

Changes in center-of-pressure location caused by operation of the upper-surface spoiler were generally less for the spoiler with no gap than for the spoiler with a gap. At moderately high angles of attack, the center-of-pressure locations were affected only slightly by the spoilers, although the spoilers were still effective in reducing normal force at these angles. (See fig. 5.)



### Effect of Spoiler on Wing Section Loadings

Figure 8 presents the semispan load distributions for the basic wing and the three spoiler configurations at all test Mach numbers. For the lower angles of attack, when the spoilers were most effective, the important loading changes caused by the spoiler occurred outboard of 0.3 semi-span, the largest decrements being in the region between 0.6 and 0.8 semi-span. This large influence over the outboard regions of the wing was the cause of the inboard position of the panel center of pressure for upper-surface spoilers (or outboard for lower-surface spoilers) at low positive load conditions. The loss in effectiveness for the upper-surface spoilers as the angle of attack was increased beyond  $6^\circ$  is evident as a reduction in the load decrement beginning near the tip.

Addition of a gap through the wing behind the spoiler produced an added decrement in section normal-load parameter which extended across most of the semispan.

Figure 9 shows the wing-section center-of-pressure locations across the span of the wing at all test Mach numbers. For a swept wing the line of section centers of pressure tends to be somewhat less swept than the wing itself as shown by the basic wing data in this figure. The effect of adding the upper-surface spoilers was to exaggerate this tendency, the local center of pressure being farther rearward inboard and farther forward outboard. This effect was most noticeable at low angles of attack ( $\alpha = 4^\circ$  and  $6^\circ$ ) but rapidly decreased at higher angles for two reasons: The spoiler decrements were smaller in absolute magnitude at high angles of attack and were a smaller proportionate amount of the total normal force.

The lower-surface spoiler at low angles of attack had the opposite effect, that is, the center of pressure was more forward inboard and more rearward outboard at low angles of attack ( $\alpha = 4^\circ$ ) than it was for the basic wing.

Figure 9 also shows that the section center-of-pressure locations moved ahead of the leading edge at low angles of attack for the upper-surface-spoiler configurations. This movement occurred whenever the section normal force approached zero while a finite section moment remained.

### Chordwise Pressure Distributions

In the discussion which follows, selected chordwise pressure distributions for the basic wing and the three spoiler configurations are used in conjunction with unpublished tuft photographs obtained on one spoiler configuration (upper-surface spoiler - no gap) to permit the study of the effect of the spoilers on the flow over the wing.

Upper-surface spoiler without a gap.- Figure 10 shows the chordwise pressure distributions obtained at seven spanwise stations at several Mach numbers. For a Mach number of 0.60 (fig. 10(a)) and low angles of attack, the presence of the spoiler resulted in increased pressures on the upper surface ahead of the spoiler. The highest pressures were immediately ahead of the spoiler, the peak being in the corner ahead of the spoiler-fuselage juncture. This peak was sharp, but elsewhere along the spoiler face a relatively flat peak about 0.1 chord in width indicated a separated flow region. Tuft studies confirmed this result and showed that the flow on the wing surface in this region was toward the tip and parallel to the spoiler.

Behind the spoiler on the upper surface the pressures (fig. 10(a)) and tuft studies also indicated a separated flow condition. Immediately adjacent to the fuselage, the separation extended only a few percent of the chord behind the spoiler and was followed by complete recovery of the flow. Since the expansion or turn made by the air over the top of the spoiler was very abrupt, the pressures reached at this point were quite low, being about the same as those reached at the leading edge at high angles of attack. Somewhat farther out on the wing (at 0.25 semispan), the extent of the separation was greater, recovery being made at about the trailing edge. Because of the increased extent of the separated region, the air turned down toward the surface less abruptly than at the more inward locations, and the pressures reached were not as low. Outboard of 0.25 semispan, complete separation of the flow behind the spoiler was indicated by the flat pressure distributions. The pressure in this region steadily increased toward the wing tip but was always less than for the basic wing.

Apparently the flow about the spoiler was somewhat similar to that described in reference 10 for a two-dimensional supersonic case and as illustrated in figure 11 but combined with the circulatory flow patterns in the boundary layer was the outboard movement of the boundary layer in the regions ahead and behind the spoiler. The pressure distributions were somewhat similar to the two-dimensional case, and the circulation in the separated areas also appeared to be present. Ahead of the spoiler this circulation was evidenced by the spoiler face pressure distributions to be discussed later, whereas behind the spoiler the direction of the tufts indicated that the air on the wing surface was moving toward the spoiler (in addition to moving outboard). Since this circulation was combined with a spanwise movement, the flow may be described as two vortex-type motions, one ahead of the spoiler and the other behind the spoiler.

The lower-surface pressures on the wing, as shown in figure 10(a), were not changed in the inboard areas because of the presence of a spoiler on the upper surface. At about 0.30 semispan, however, the separated area behind the spoiler on the upper surface reached the trailing edge and from

this point on the semispan to the tip the pressures on the lower surface were reduced because of the influence of the upper-surface flow. Outboard of 0.55 semispan the reduction in lower-surface pressure extended all the way to the leading edge.

As the angle of attack was increased, it was apparent that the effect of the spoiler on the wing did not change appreciably until angles of attack were reached where the flow separation on the basic wing began to progress inboard from the tip. (See fig. 10(a).) At these angles of attack, the spoiler effectiveness was reduced, as would be expected, since raising the spoiler into a separated flow region where the air is already moving parallel to the spoiler should not have any effect. (A discussion pertaining to the flow over the basic wing may be found in ref. 11.)

As the Mach number was increased from 0.6 at zero angle of attack (fig. 10(a)), there was no change apparent in the way which the spoiler affected the flow until about Mach number 1.0 (fig. 10(e)). Beginning at this speed the lower-surface influence was less extensive, being generally confined to the area behind the 0.70-chord line. At higher angles of attack the upper-surface influence ahead of the spoilers was also less extensive for the higher speeds. This effect was mainly noticeable over the inboard stations and was probably caused by the presence of a shock wave associated with the separation point ahead of the spoiler. The presence of this shock wave would have opposed the transmission of the pressure increase ahead of this point except outboard where the boundary layer was considerably thickened.

The effects of these pressure changes on the rolling moment were as follows: The pressures on the upper surface ahead of the spoiler and on all the lower surface changed in a direction to decrease the lift and thus contribute to the rolling moment, whereas the pressure decreases behind the spoiler on the upper surface were adverse. Inboard this adverse contribution was enough to completely offset the small favorable contribution which occurred at these stations. Thus, the span load distributions (fig. 8) show the largest normal-force decrements to have occurred outboard (between 0.6 and 0.8 semispan) and that the contribution of that part of the wing inboard of 0.3 semispan was generally unfavorable. These pressure changes also indicate the reasons for the discontinuities in the panel center-of-pressure locations shown in figures 6 and 7. Zero panel lift occurred at a small positive angle of attack and for each angle of attack the unaffected inboard sections were positively loaded, whereas the outboard sections, where the spoiler was most effective, were negatively loaded.

The ineffectiveness of the spoiler inboard of 0.3 semispan is not too important since the roll moment arm is small, but the large pressure difference across the spoiler near the fuselage is undesirable since it

contributes heavily to the drag. These adverse roll and drag effects inboard may indicate that an improvement could be obtained by removing the inboard part of the spoiler, but there is a likelihood that the region of adverse effects would then move outboard. In other words, the trouble may be associated with the inner end of the spoiler more than with the inboard area of the wing.

Effect of a gap through the wing behind an upper-surface spoiler.- Figure 12 compares chordwise pressure distributions of the basic wing with those of the spoiler-with-gap configuration throughout the Mach number and angle-of-attack range, and figure 13 compares the configurations with and without gap at a few points.

It appeared that the gap served to relieve the pressure difference between the upper- and lower-surface trailing-edge regions but its presence did not affect the extent of flow separation behind the spoiler. Evidently, the quantity of flow through the gap was too small to affect the extent of flow separation or the flow was not directed through the gap properly to decrease the extent of flow separation.

At all angles of attack and Mach numbers the gap was effective in increasing the upper-surface pressures behind the spoiler. The gap was also effective in increasing upper-surface pressures ahead of the spoiler, but this effect was very small at low angles of attack. Both of these effects increased the rolling effectiveness. On the lower surface, effects of the gap were limited to localized pressure changes.

Lower-surface spoiler with a gap.- The effect of a lower-surface spoiler ahead of a wing gap on the wing pressures is shown in figure 14. At the lower angles of attack, the lower-surface spoiler was equivalent in its effect on the flow to the upper-surface spoiler, the basic configuration being completely symmetrical about the chord plane. The appropriate part of the discussion on upper-surface spoilers therefore applies. As the angle of attack was increased, however, the lower-surface spoiler became ineffective and above about  $10^\circ$  produced losses in lift rather than increases. The changes leading to these losses in lift were as follows:

- (1) The region of increased pressure ahead of the spoiler on the lower surface became less extensive.
- (2) Behind the spoiler, the lower-surface pressures became much less than corresponding basic wing pressures and hence there was a large reduction in normal force over the trailing-edge region.
- (3) When the angle of attack was reached where separation existed on the upper surface, the influence of the lower-surface spoiler in reducing upper-surface pressures vanished.

Thus, the two favorable influences noted for upper-surface spoilers both became less for the lower-surface spoiler as the angle of attack was increased, whereas the unfavorable influence became greater. This increase with angle of attack of the unfavorable trailing-edge loading did not occur with the spoiler on the upper surface.

#### Oppositely Deflected Spoilers

A configuration was tested in which the left wing had an upper-surface spoiler and the right wing had a lower-surface spoiler. There was no gap through the wing behind either spoiler.

Comparisons showing the effect of the lower-surface spoiler on span-load distributions for the wing having the upper-surface spoiler are presented in figure 15 for three representative Mach numbers. Study of this figure and unpublished comparisons at other Mach numbers showed that the presence of the right-wing lower-surface spoiler reduced the effectiveness of the left-wing upper-surface spoiler at an angle of attack of  $0^\circ$  for Mach numbers above 0.90. For all other conditions the reverse was true, although the differences appeared to be small in every case.

At about  $11^\circ$  there were inconsistencies in the span loadings throughout the speed range, possibly because at this angle of attack the extent of the separated flow on the wing was not always consistent. Small differences in surface conditions on the wing could probably have varied the extent of separation at this angle of attack enough to account for the differences shown.

In order to determine the magnitude of the rolling moment represented by the differences shown in the span-load plots of figure 15, the differences were plotted to a larger scale and integrated for moment about the plane of symmetry. The rolling-moment-coefficient increments so obtained in general were less than  $\pm 0.0016$ , with no consistent Mach number effects discernible. Thus, the carry-over effects between wings were quite small, probably because of the inability of the spoiler to affect the inboard wing section loads to any great extent. This indication should lend credence to the use of reflection-plane test techniques for obtaining data on this type of control on swept wings.

Chordwise pressure differences have been compared at one speed only (fig. 16) to show the effect of adding the lower-surface spoiler to the opposite wing. The generally small differences were typical of all speeds.

### Spoiler Loadings

Pressures at each spanwise station on the spoilers were integrated in such a manner as to obtain the pressure force coefficient normal to the spoiler chord line as indicated in the list of symbols. Figure 17 shows distributions across the wing span of these spoiler section normal-force coefficients for the three spoiler configurations weighted for spoiler height.

For upper-surface spoilers, the highest loads occurred at zero angle of attack. As the angle of attack was increased, the spoiler loads, especially near the tip, fell rather rapidly. At about an angle of attack of  $11^\circ$ , when flow separation existed over a considerable portion of the outboard wing area (see figs. 10 and 12), the spoilers were unloaded outboard of 0.40 semispan for all Mach numbers. This loss of spoiler load contrasted with the wing span-load distributions (fig. 8) which show that lift decrements caused by the spoilers extended much farther outboard at this angle of attack. Apparently, the inboard portions of the spoiler had an influence on the separated flow over the outboard wing areas. At higher angles of attack, where flow separation extended over more of the wing, this influence diminished.

Addition of a gap through the wing behind the spoiler resulted in a reduction of the loads on the spoiler for nearly all conditions. Figure 18, which makes a few comparisons of pressures on the upper-surface spoiler with and without gap, shows that this reduction resulted from increases in the low pressure on the back of the spoiler. These increases were probably due to the flow of high pressure air from the lower surface through the gap. The largest relief, as might be expected, was inboard where the pressures behind the spoiler were lowest.

Figure 18 shows that, at 0.25 semispan for angles of attack up to  $16^\circ$  and at other stations for low angles, the front face pressures on the spoiler were somewhat lower in the center of the spoiler than at the top and bottom. This type of pressure distribution is similar to that shown in reference 12 and probably indicates that there was a circulation of the separated air ahead of the spoiler as illustrated in figure 11, since such a circulation would result in higher velocities (and lower pressures) near the center than at the top or bottom.

For a lower-surface spoiler, figure 17 indicates that the loads continued to increase to the highest angles of attack of these tests. Figure 19, which compares the pressures on upper- and lower-surface spoilers, shows that the load on the lower-surface spoiler increased with angle of attack because the pressure coefficient on the front face of the spoiler remained at an approximately constant positive value through the angle-of-attack range, whereas the rear face pressure coefficient became more negative with increasing angle of attack.

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Inasmuch as the spoiler pressure distributions were quite rectangular for most conditions, it would seem that a satisfactory measure of the spoiler loads could be obtained from a pair of orifices at each station located in the wing at the base of the spoiler, one orifice being immediately ahead of the spoiler and the other immediately behind. In order to test this supposition, the loads on the spoiler have been determined by this method at two speeds, Mach number 0.60 and 0.98, by using the closest available wing orifices, which were at 0.65- and 0.75-chord locations. The pressure at the 0.65-chord location was assumed to be the same as that on the front face of the spoiler and the pressure at 0.75-chord location was assumed to be the same as that on the rear face. The results are shown by the symbols in figures 17(a) and 17(f). Agreement was good for most conditions but would probably have been better if orifices closer to the spoiler had been available. This is especially true at the inboard stations where the extent of the separated flow ahead and behind the spoiler was small. It is therefore believed that a pair of properly located orifices on the wing at each station would give loads on this type spoiler as good as those obtained in the present tests with seven orifices on the spoiler at each station.

### CONCLUSIONS

An investigation was conducted with 73-percent-semispan inboard-spoiler ailerons having heights of 4 percent of the local chord and located on the 70-percent-chord line of a 45° sweptback-wing—fuselage combination. Pressure data were measured on the wing and spoiler at several spanwise stations at Mach numbers from 0.60 (Reynolds number  $5.1 \times 10^6$ ) to 1.03 (Reynolds number  $6.2 \times 10^6$ ) for angles of attack that usually extended to 20° or more. The results of the investigation indicate the following conclusions:

(1) Operation of upper-surface spoilers at low and moderate angles of attack produces normal-force decrements which are largest in the 0.6 to 0.8 semispan area of the wing. Most of the normal-force decrement is associated with increases in the upper-surface pressures ahead of the spoiler due to a deceleration of the air approaching the spoiler. An additional contributing factor is a decrease in lower-surface pressures resulting from transmission of upper-surface pressure changes around the trailing edge.

(2) Rolling-moment effectiveness is reduced for upper-surface spoilers at high angles of attack because they do not have much effect on the separated flow which occurs on the basic swept wing at these angles of attack.

(3) A gap through the wing behind the spoiler is effective in increasing the rolling-moment effectiveness because it permits a relief of the pressure difference between the upper- and lower-wing surfaces.

(4) Lower-surface spoilers give reversed rolling-moment effectiveness at angles of attack higher than about  $10^\circ$  primarily because there is a large decrease in pressure behind the spoiler on the lower-wing surface at the higher angles of attack.

(5) A lower-surface spoiler has only a small effect on the rolling-moment effectiveness of a spoiler located on the upper surface of the opposite wing.

(6) Spoiler section loadings are highest at the inboard end. For upper-surface spoilers, the spoiler loading decreases rapidly with increasing angle of attack, especially outboard. For a lower-surface spoiler, however, the spoiler loading increases with angle of attack.

(7) Spoiler section load at any point along a spoiler of this type can be determined by measurement at the wing surface of the pressure drop across the spoiler.

Langley Aeronautical Laboratory,  
National Advisory Committee for Aeronautics,  
Langley Field, Va., March 8, 1954.



## REFERENCES

1. Hammond, Alexander D.: Lateral-Control Investigation of Flap-Type and Spoiler-Type Controls on a Wing With Quarter-Chord-Line Sweepback of  $60^\circ$ , Aspect Ratio 2, Taper Ratio 0.6, and NACA 65A006 Airfoil Section. Transonic-Bump Method. NACA RM L50E09, 1950.
2. Luoma, Arvo A.: An Investigation of the Lateral-Control Characteristics of Spoilers on a High-Aspect-Ratio Wing of NACA 65-210 Section in the Langley 8-Foot High-Speed Tunnel. NACA RM L7D21, 1947.
3. Hammond, Alexander D., and McMullan, Barbara M.: Chordwise Pressure Distribution at High Subsonic Speeds Near Midsemispan of a Tapered  $35^\circ$  Sweptback Wing of Aspect Ratio 4 Having NACA 65A006 Airfoil Sections and Equipped With Various Spoiler Ailerons. NACA RM L52C28, 1952.
4. Hammond, Alexander D., and West, F. E., Jr.: Loads Due to Flaps and Spoilers on Sweptback Wings at Subsonic and Transonic Speeds. NACA RM L53D29a, 1953.
5. West, F. E., Jr., Solomon, William, and Brummal, Edward M.: Investigation of Spoiler Ailerons With and Without a Gap Behind the Spoiler on a  $45^\circ$  Sweptback Wing-Fuselage Combination at Mach Numbers From 0.60 to 1.03. NACA RM L53G07a, 1953.
6. Ward, Vernon G., Whitcomb, Charles F., and Pearson, Merwin D.: Airflow and Power Characteristics of the Langley 16-Foot Transonic Tunnel With Slotted Test Section. NACA RM L52E01, 1952.
7. Hallissy, Joseph M., and Bowman, Donald R.: Transonic Characteristics of a  $45^\circ$  Sweptback Wing-Fuselage Combination. Effect of Longitudinal Wing Position and Division of Wing and Fuselage Forces and Moments. NACA RM L52K04, 1953.
8. Whitcomb, Charles F., and Osborne, Robert S.: An Experimental Investigation of Boundary Interference on Force and Moment Characteristics of Lifting Models in the Langley 16- and 8-Foot Transonic Tunnels. NACA RM L52L29, 1953.
9. Hammond, Alexander D., and Watson, James M.: Lateral-Control Investigation at Transonic Speeds of Retractable Spoiler and Plug-Type Spoiler-Slot Ailerons on a Tapered  $60^\circ$  Sweptback Wing of Aspect Ratio 2. Transonic-Bump Method. NACA RM L52F16, 1952.

10. Mueller, James N.: Investigation of Spoilers at a Mach Number of 1.93 To Determine the Effects of Height and Chordwise Location on the Section Aerodynamic Characteristics of a Two-Dimensional Wing. NACA RM L52L31, 1953.
11. West, F. E., Jr., and Henderson, James H.: Relationship of Flow Over a  $45^\circ$  Sweptback Wing With and Without Leading-Edge Chord-Extensions to Longitudinal Stability Characteristics at Mach Numbers From 0.60 to 1.03. NACA RM L53H18b, 1953.
12. Lange, Roy H.: Present Status of Information Relative to the Prediction of Shock-Induced Boundary-Layer Separation. NACA TN 3065, 1954.

TABLE 1

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:							
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
		M = 0.60    α = 0.0°								
UPPER SURFACE		.00	.019	.485	.442	.684	.449	.467	.443	
		1.25	.137	.180	.144	.093	.044	.091	.088	
		2.50	.063	.097	.180	.098	.103	.138	.071	
		5.00	.002	.093	.112	.098	.069	.071	.096	
		7.50	.028	.105	.094	.091	.102	.090	.111	
		10.00	.038	.116	.189	.107	.110	.101	.123	
		15.00	.069	.124	.138	.125	.114	.124	.104	
		20.00	.081	.132	.146	.134	.126	.125	.122	
		25.00	.101	.146	.156	.139	.127	.126	.112	
		30.00	.119	.154	.164	.147	.133	.134	.112	
		35.00	.118	.159	.169	.150	.138	.141	.114	
		40.00	.130	.169	.169	.154	.140	.138	.106	
		45.00	.145	.170	.169	.155	.136	.137	.103	
		50.00	.159	.174	.169	.150	.135	.130	.095	
		55.00	.137	.169	.155	.149	.128	.125	.083	
		60.00	.149	.164	.145	.100	.115	.104	.059	
		65.00	.157	.146	.180	.099	.099	.082	.048	
		70.00	.117						.040	
		75.00	.106	.115	.085	.074	.061	.046	.017	
LOWER SURFACE		80.00	.139	.083	.085	.044	.038	.017	.010	
		85.00	.114	.054	.005	.020	.000	.011	.037	
		90.00	.099	.030	.002	.009	.022	.039	.052	
		95.00	.064	.005	.032	.017	.048	.066	.070	
		1.25	.134	.092	.125	.134	.124		.140	
		2.50	.069	.069	.098	.098	.091		.109	
		5.00	.021	.071	.098	.047	.101	.074	.109	
		7.50	.001	.087	.106	.080	.114	.114	.137	
		10.00	.028	.099	.115	.106	.116	.103	.136	
		15.00	.053	.121	.128	.129	.122	.111	.140	
		20.00	.090	.130	.144	.139	.132	.128	.136	
		25.00	.065	.142	.150	.144	.142	.137	.118	
		30.00	.117	.153	.154	.143	.144	.138	.118	
		35.00	.124	.163	.147	.147	.143	.139	.115	
		40.00	.126	.162	.143	.147	.146	.136	.111	
		45.00	.141	.170	.143	.148	.147	.139	.108	
		50.00	.163	.178	.148	.148	.137	.131	.099	
		55.00	.159	.170	.157	.143	.128	.126	.092	
		60.00	.158	.155	.136	.129	.110	.110	.073	
	65.00	.161	.138	.129	.113	.086	.084	.050		
	70.00	.143						.039		
	75.00	.131	.108	.084	.069	.048	.042	.029		
	80.00	.103	.078	.057	.051	.031	.015	.011		
	85.00	.123	.058	.032	.010	.008	.022	.035		
	90.00	.096	.031	.007	.008	.014	.020	.031		
	95.00	.102	.003	.032	.045	.044	.050	.057		
		M = 0.60    α = 4.0°								
UPPER SURFACE		.00	.013	.241	.471	.349	.905	.969	.673	
		1.25	.170	1.092	1.332	1.238	1.471	1.344	1.376	
		2.50	.243	.588	.718	.766	.844	.901	.679	
		5.00	.275	.465	.546	.561	.541	.555	.512	
		7.50	.277	.400	.458	.479	.493	.472	.440	
		10.00	.264	.373	.429	.448	.446	.424	.374	
		15.00	.266	.341	.394	.393	.370	.370	.275	
		20.00	.261	.322	.355	.356	.343	.319	.251	
		25.00	.264	.312	.338	.331	.315	.287	.219	
		30.00	.270	.307	.326	.317	.296	.268	.200	
		35.00	.256	.300	.310	.302	.281	.243	.191	
		40.00	.260	.297	.301	.286	.261	.222	.172	
		45.00	.264	.291	.285	.265	.244	.201	.161	
		50.00	.276	.283	.270	.256	.234	.188	.147	
		55.00	.239	.273	.244	.241	.205	.166	.135	
		60.00	.247	.252	.217	.175	.177	.135	.101	
		65.00	.251	.224	.168	.172	.149	.105	.085	
		70.00	.198						.075	
		75.00	.198	.171	.127	.114	.086	.051	.047	
	80.00	.205	.131	.093	.077	.057	.022	.027		
LOWER SURFACE		85.00	.178	.094	.066	.047	.019	.007	.002	
		90.00	.142	.056	.025	.007	.013	.040	.013	
		95.00	.093	.012	.016	.008	.039	.067	.030	
		1.25	.308	.357	.377	.362	.413		.376	
		2.50	.272	.280	.297	.293	.331	.353	.287	
		5.00	.217	.201	.204	.238	.240	.244	.180	
		7.50	.189	.149	.163	.194	.183	.187	.101	
		10.00	.164	.116	.127	.158	.145	.165	.054	
		15.00	.120	.069	.084	.087	.103	.092	.005	
		20.00	.071	.037	.041	.050	.061	.059	.041	
		25.00	.075	.004	.012	.019	.033	.027	.036	
		30.00	.086	.021	.012	.012	.009	.003	.071	
		35.00	.083	.021	.013	.017	.006	.026	.075	
		40.00	.083	.020	.013	.011	.019	.041	.080	
		45.00	.087	.024	.018	.046	.035	.055	.083	
		50.00	.052	.083	.070	.051	.040	.064	.082	
		55.00	.061	.081	.069	.052	.045	.065	.082	
		60.00	.066	.077	.068	.052	.039	.056	.073	
		65.00	.075	.075	.068	.044	.022	.043	.055	
	70.00	.068						.049		
	75.00	.067	.063	.039	.028	.007	.014	.043		
	80.00	.047	.035	.023	.007	.005	.002	.035		
	85.00	.069	.027	.000	.007	.017	.028	.003		
	90.00	.055	.016	.012	.016	.033	.027	.003		
	95.00	.054	.006	.038	.041	.057	.056	.017		

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.60    α = 6.0°								
	1.00	0.19	0.984	1.088	0.764	1.570	1.268	1.403	
	1.25	0.348	1.613	1.834	1.511	1.396	1.055	1.440	
	2.50	0.413	1.948	1.067	1.838	1.160	0.992	1.358	
	5.00	0.418	1.698	0.908	1.967	0.893	0.863	1.242	
	7.50	0.401	1.588	0.756	1.771	0.783	0.783	1.027	
	10.00	0.373	1.538	0.686	1.663	0.678	0.707	0.662	
	15.00	0.359	1.460	0.570	1.532	0.557	0.585	0.273	
	20.00	0.341	1.420	0.490	1.466	0.483	0.496	0.269	
	25.00	0.335	1.398	0.440	1.420	0.433	0.417	0.238	
	30.00	0.331	1.374	0.411	1.388	0.399	0.369	0.223	
	35.00	0.313	1.360	0.384	1.370	0.369	0.324	0.211	
	40.00	0.312	1.351	0.364	1.349	0.335	0.285	0.194	
	45.00	0.311	1.337	0.338	1.323	0.310	0.256	0.186	
	50.00	0.319	1.323	0.312	1.293	0.277	0.220	0.168	
	55.00	0.277	1.304	0.279	1.268	0.243	0.192	0.168	
	60.00	0.282	1.281	0.250	1.208	0.213	0.160	0.127	
	65.00	0.218	1.249	0.212	1.199	0.180	0.131	0.117	
LOWER SURFACE	1.00	0.187	0.454	0.447	0.137	0.116	0.077	0.098	
	1.25	0.142	0.391	0.396	0.099	0.094	0.049	0.081	
	2.50	0.099	0.309	0.312	0.069	0.062	0.026	0.066	
	5.00	0.059	0.254	0.259	0.034	0.025	0.003	0.055	
	7.50	0.009	0.211	0.220	0.016	0.001	0.024	0.044	
	10.00	0.160	0.211	0.278	0.001	0.001			
	15.00	0.163	0.160	0.233	0.002	0.002			
	20.00	0.154	0.123	0.171	0.006	0.006			
	25.00	0.101	0.087	0.117	0.009	0.009			
	30.00	0.075	0.061	0.092	0.017	0.017			
	35.00	0.064	0.034	0.060	0.036	0.036			
	40.00	0.035	0.019	0.036	0.018	0.018			
	45.00	0.011	0.004	0.015	0.005	0.005			
	50.00	0.004	0.023	0.017	0.009	0.009			
	55.00	0.013	0.027	0.013	0.014	0.014			
	60.00	0.016	0.028	0.014	0.014	0.013			
	65.00	0.017							
	70.00	0.025	0.024	0.008	0.001	0.000	0.026	0.087	
75.00	0.004	0.003	0.002	0.011	0.000	0.015	0.044		
80.00	0.025	0.001	0.017	0.021	0.007	0.016	0.027		
85.00	0.021	0.009	0.023	0.022	0.025	0.005	0.018		
90.00	0.017	0.021	0.048	0.041	0.036	0.023	0.005		
UPPER SURFACE	M = 0.60    α = 8.0°								
	1.00	0.003	1.274	1.541	0.768	1.252	1.157	1.483	
	1.25	0.600	1.213	1.882	1.042	0.953	0.936	1.172	
	2.50	0.653	1.134	1.821	0.006	0.944	0.907	1.095	
	5.00	0.624	1.030	1.137	0.956	0.906	0.862	0.982	
	7.50	0.594	0.905	1.000	0.901	0.859	0.833	0.865	
	10.00	0.548	0.829	0.965	0.857	0.816	0.798	0.739	
	15.00	0.503	0.713	0.836	0.779	0.738	0.730	0.526	
	20.00	0.466	0.625	0.674	0.709	0.693	0.668	0.402	
	25.00	0.450	0.551	0.597	0.657	0.647	0.601	0.335	
	30.00	0.442	0.489	0.502	0.603	0.591	0.551	0.297	
	35.00	0.411	0.441	0.457	0.549	0.524	0.488	0.277	
	40.00	0.396	0.412	0.441	0.490	0.449	0.425	0.255	
	45.00	0.398	0.388	0.393	0.438	0.388	0.367	0.243	
	50.00	0.345	0.360	0.349	0.389	0.323	0.315	0.226	
	55.00	0.348	0.333	0.303	0.340	0.275	0.267	0.221	
	60.00	0.341	0.297	0.281	0.268	0.231	0.226	0.208	
	65.00	0.272	0.240	0.240	0.252	0.188	0.190	0.191	
70.00	0.283						0.182		
75.00	0.266	0.225	0.168	0.176	0.118	0.125	0.178		
80.00	0.230	0.180	0.131	0.142	0.094	0.098	0.166		
85.00	0.181	0.132	0.081	0.095	0.062	0.076	0.143		
90.00	0.113	0.087	0.052	0.065	0.034	0.044	0.131		
95.00		0.035	0.025	0.040	0.012	0.021	0.117		
LOWER SURFACE	1.25	0.368	0.484	0.467	0.476	0.467		0.425	
	2.50	0.353	0.448	0.449	0.439	0.449	0.461	0.393	
	5.00	0.369	0.382	0.381	0.389	0.388	0.380	0.308	
	7.50	0.365	0.327	0.337	0.336	0.334	0.322	0.222	
	10.00	0.337	0.285	0.289	0.304	0.301	0.302	0.166	
	15.00	0.288	0.223	0.234	0.232	0.238	0.216	0.083	
	20.00	0.233	0.182	0.183	0.183	0.190	0.165	0.017	
	25.00	0.220	0.146	0.141	0.155	0.151	0.124	0.000	
	30.00	0.160	0.112	0.117	0.121	0.118	0.089	0.030	
	35.00	0.129	0.082	0.081	0.093	0.090	0.053	0.035	
	40.00	0.111	0.063	0.060	0.071	0.067	0.026	0.053	
	45.00	0.080	0.035	0.039	0.049	0.043	0.004	0.056	
	50.00	0.051	0.017	0.026	0.030	0.029	0.013	0.058	
	55.00	0.030	0.009	0.019	0.020	0.017	0.026	0.063	
	60.00	0.017	0.004	0.017	0.014	0.008	0.033	0.061	
	65.00	0.013	0.002	0.006	0.014	0.013	0.026	0.052	
	70.00	0.008						0.044	
	75.00	0.011	0.008	0.009	0.014	0.013	0.022	0.047	
80.00	0.011	0.007	0.012	0.017	0.010	0.010	0.039		
85.00	0.010	0.001	0.022	0.027	0.013	0.014	0.027		
90.00	0.013	0.011	0.028	0.037	0.023	0.008	0.027		
95.00	0.009	0.015	0.032	0.035	0.023	0.006	0.045		

TABLE I

BASIC WING

PERCENT CHORD		PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.60    α = 11.2°								
UPPER SURFACE	.00	.001	.007	.1789	.1385	.820	.550	.552
	1.25	.057	.1304	.1271	.1227	.794	.536	.459
	2.50	.123	.1336	.1267	.1239	.794	.525	.461
	3.75	.183	.1353	.1267	.1246	.791	.510	.463
	5.00	.249	.1368	.1231	.1266	.780	.514	.455
	7.50	.348	.1387	.1226	.1281	.770	.504	.439
	10.00	.448	.1428	.1192	.1202	.758	.487	.385
	12.50	.548	.1486	.1159	.1111	.737	.465	.336
	15.00	.648	.1562	.1111	.1024	.719	.437	.298
	17.50	.748	.1632	.1044	.936	.705	.422	.271
	20.00	.848	.1699	.973	.864	.689	.401	.257
	22.50	.948	.1763	.888	.798	.672	.382	.230
	25.00	1.048	.1823	.787	.739	.661	.369	.215
	27.50	1.148	.1879	.698	.675	.641	.354	.210
	30.00	1.248	.1931	.623	.623	.618	.341	.200
	32.50	1.348	.1979	.550	.534	.588	.325	.195
	35.00	1.448	.2023	.482	.499	.548	.325	.193
	LOWER SURFACE	.00	.001	.007	.1789	.1385	.820	.550
1.25		.057	.1304	.1271	.1227	.794	.536	.459
2.50		.123	.1336	.1267	.1239	.794	.525	.461
3.75		.183	.1353	.1267	.1246	.791	.510	.463
5.00		.249	.1368	.1231	.1266	.780	.514	.455
7.50		.348	.1387	.1226	.1281	.770	.504	.439
10.00		.448	.1428	.1192	.1202	.758	.487	.385
12.50		.548	.1486	.1159	.1111	.737	.465	.336
15.00		.648	.1562	.1111	.1024	.719	.437	.298
17.50		.748	.1632	.1044	.936	.705	.422	.271
20.00		.848	.1699	.973	.864	.689	.401	.257
22.50		.948	.1763	.888	.798	.672	.382	.230
25.00		1.048	.1823	.787	.739	.661	.369	.215
27.50		1.148	.1879	.698	.675	.641	.354	.210
30.00		1.248	.1931	.623	.623	.618	.341	.200
32.50		1.348	.1979	.550	.534	.588	.325	.195
35.00		1.448	.2023	.482	.499	.548	.325	.193
M = 0.60    α = 15.5°								
UPPER SURFACE	.00	.007	.0324	.1264	.1045	.666	.468	.371
	1.25	.0591	.0981	.1234	.1057	.647	.454	.355
	2.50	.1209	.1298	.1234	.1054	.649	.453	.334
	3.75	.1888	.1299	.1234	.1050	.648	.440	.330
	5.00	.2613	.1294	.1234	.1047	.648	.443	.330
	7.50	.3294	.1294	.1234	.1048	.638	.438	.328
	10.00	.4064	.1294	.1234	.1048	.638	.438	.328
	12.50	.4970	.1294	.1234	.1048	.638	.438	.328
	15.00	.5807	.1294	.1234	.1048	.638	.438	.328
	17.50	.6663	.1294	.1234	.1048	.638	.438	.328
	20.00	.7528	.1294	.1234	.1048	.638	.438	.328
	22.50	.8403	.1294	.1234	.1048	.638	.438	.328
	25.00	.9288	.1294	.1234	.1048	.638	.438	.328
	27.50	1.0183	.1294	.1234	.1048	.638	.438	.328
	30.00	1.1088	.1294	.1234	.1048	.638	.438	.328
	32.50	1.1993	.1294	.1234	.1048	.638	.438	.328
	35.00	1.2898	.1294	.1234	.1048	.638	.438	.328
	LOWER SURFACE	.00	.007	.0324	.1264	.1045	.666	.468
1.25		.0591	.0981	.1234	.1057	.647	.454	.355
2.50		.1209	.1298	.1234	.1054	.649	.453	.334
3.75		.1888	.1299	.1234	.1050	.648	.440	.330
5.00		.2613	.1294	.1234	.1047	.648	.443	.330
7.50		.3294	.1294	.1234	.1048	.638	.438	.328
10.00		.4064	.1294	.1234	.1048	.638	.438	.328
12.50		.4970	.1294	.1234	.1048	.638	.438	.328
15.00		.5807	.1294	.1234	.1048	.638	.438	.328
17.50		.6663	.1294	.1234	.1048	.638	.438	.328
20.00		.7528	.1294	.1234	.1048	.638	.438	.328
22.50		.8403	.1294	.1234	.1048	.638	.438	.328
25.00		.9288	.1294	.1234	.1048	.638	.438	.328
27.50		1.0183	.1294	.1234	.1048	.638	.438	.328
30.00		1.1088	.1294	.1234	.1048	.638	.438	.328
32.50		1.1993	.1294	.1234	.1048	.638	.438	.328
35.00		1.2898	.1294	.1234	.1048	.638	.438	.328

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:							
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
UPPER SURFACE	M = 0.60    α = 19.5°									
	.00	.081	1.259	1.070	1.060	.604	.507	.453		
	1.25	.030	1.248	1.037	.801	.599	.498	.433		
	2.50	.286	1.236	1.038	.794	.596	.498	.428		
	3.75	.383	1.231	1.088	.793	.591	.489	.424		
	5.00	.344	1.226	.996	.790	.591	.493	.415		
	7.50	.315	1.219	1.003	.783	.587	.492	.424		
	10.00	.277	1.205	.986	.766	.580	.486	.421		
	15.00	.234	1.198	.975	.757	.574	.480	.419		
	20.00	.192	1.182	.955	.740	.569	.471	.419		
	25.00	.140	1.167	.947	.730	.563	.476	.424		
	30.00	.081	1.146	.938	.720	.554	.472	.423		
	35.00	.022	1.124	.930	.714	.552	.470	.421		
	40.00	.968	1.095	.915	.707	.551	.468	.421		
	45.00	.923	1.063	.904	.705	.547	.469	.414		
	50.00	.850	1.030	.888	.706	.546	.464	.409		
	55.00	.816	.997	.874	.703	.542	.450	.403		
	60.00	.785	.955	.861	.691	.537	.438	.393		
	65.00	.707						.395		
	70.00	.660	.881	.815	.670	.526	.423	.378		
	75.00	.619	.836	.782	.650	.516	.410	.366		
	80.00	.555	.778	.736	.636	.500	.400	.356		
	85.00	.555	.724	.704	.608	.484	.385	.346		
	90.00	.481	.668	.687	.591	.450	.368	.331		
LOWER SURFACE	1.25	.125	.408	.331	.423	.387		.358		
	2.50	.224	.571	.506	.518	.495	.486	.408		
	3.75	.112	.606	.548	.527	.507	.470	.374		
	5.00	.673	.589	.535	.510	.483	.441	.322		
	7.50	.633	.566	.512	.488	.455	.426	.273		
	10.00	.633	.508	.467	.430	.397	.353	.200		
	15.00	.565	.466	.421	.381	.345	.292	.116		
	20.00	.523	.414	.372	.332	.297	.241	.068		
	25.00	.471	.371	.329	.287	.249	.186	.021		
	30.00	.419	.329	.287	.243	.202	.139	.017		
	35.00	.387	.293	.250	.204	.164	.094	.023		
	40.00	.344	.254	.210	.156	.116	.051	.070		
	45.00	.305	.216	.158	.116	.083	.015	.093		
	50.00	.264	.184	.125	.080	.044	.022	.116		
	55.00	.232	.152	.093	.048	.010	.048	.119		
	60.00	.209	.127	.052	.012	.012	.075	.128		
	65.00	.178						.139		
	70.00	.118	.057	.030	.059	.069	.105	.156		
	75.00	.113	.033	.047	.091	.107	.139	.164		
	80.00	.076	.021	.108	.127	.145	.160	.181		
	85.00	.024	.080	.180	.195	.153	.185	.191		
	90.00	.007	.184	.269	.264	.249	.222	.217		
	UPPER SURFACE	M = 0.60    α = 25.8°								
		.00	.055	1.024	1.008	.923	.740	.604	.524	
1.25		.914	1.018	.983	.879	.735	.593	.519		
2.50		1.073	1.015	.982	.879	.733	.599	.516		
3.75		1.034	1.021	.987	.880	.729	.590	.511		
5.00		1.026	1.023	.985	.875	.725	.591	.512		
7.50		1.022	1.023	.985	.874	.723	.591	.509		
10.00		1.023	1.023	.985	.868	.710	.587	.506		
15.00		1.023	1.023	.985	.863	.708	.582	.509		
20.00		1.024	1.034	.980	.847	.705	.571	.512		
25.00		1.022	1.035	.985	.843	.695	.574	.513		
30.00		1.017	1.032	.981	.833	.690	.571	.515		
35.00		1.008	1.032	.976	.825	.684	.566	.514		
40.00		.999	1.035	.969	.819	.680	.561	.508		
45.00		.984	1.033	.963	.812	.671	.552	.500		
50.00		.978	1.031	.954	.803	.665	.543	.492		
55.00		.963	1.026	.942	.793	.658	.536	.476		
60.00		.962	1.021	.942	.793	.658	.536	.476		
65.00		.961	1.007	.927	.776	.646	.524	.465		
70.00		.935						.450		
75.00		.924	.978	.897	.750	.625	.500	.444		
80.00		.918	.957	.884	.732	.616	.486	.433		
85.00		.893	.927	.864	.724	.604	.472	.419		
90.00		.842	.897	.853	.712	.589	.452	.405		
95.00	.792	.839	.858	.703	.580	.438	.398			
LOWER SURFACE	1.25	.069	.314	.177	.285	.217		.239		
	2.50	.088	.558	.460	.468	.445	.451	.377		
	3.75	.501	.658	.567	.538	.523	.503	.403		
	5.00	.709	.668	.584	.554	.530	.500	.375		
	7.50	.725	.660	.583	.547	.517	.495	.339		
	10.00	.731	.619	.552	.510	.480	.441	.274		
	15.00	.643	.584	.509	.469	.436	.385	.196		
	20.00	.641	.534	.464	.424	.394	.335	.137		
	25.00	.595	.495	.433	.383	.343	.282	.081		
	30.00	.552	.454	.382	.339	.299	.230	.040		
	35.00	.514	.416	.337	.296	.254	.187	.016		
	40.00	.471	.372	.297	.245	.208	.138	.031		
	45.00	.425	.326	.250	.206	.159	.089	.060		
	50.00	.386	.291	.211	.160	.119	.048	.084		
	55.00	.346	.254	.178	.116	.078	.014	.097		
	60.00	.314	.213	.117	.073	.045	.020	.112		
	65.00	.278						.128		
	70.00	.209	.126	.016	.016	.033	.076	.147		
	75.00	.186	.087	.031	.061	.081	.093	.164		
	80.00	.138	.006	.094	.117	.132	.150	.189		
	85.00	.057	.089	.189	.201	.161	.190	.207		
	90.00	.009	.201	.307	.292	.281	.237	.243		

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.85    α = 0.0°								
	1.25	.00	.026	.516	.458	.712	.467	.487	.454
	2.50	.25	.193	.097	.127	.144	.048	.092	.098
	5.00	.50	.182	.080	.110	.138	.113	.156	.195
	7.50	.75	.050	.078	.115	.146	.082	.083	.112
	10.00	1.00	.011	.093	.120	.141	.120	.107	.145
	15.00	1.50	.004	.107	.138	.140	.135	.123	.178
	20.00	2.00	.041	.121	.155	.164	.135	.152	.162
	25.00	2.50	.066	.138	.172	.171	.154	.156	.176
	30.00	3.00	.093	.157	.188	.179	.167	.163	.163
	35.00	3.50	.115	.170	.201	.190	.170	.174	.154
	40.00	4.00	.116	.187	.210	.191	.177	.178	.148
	45.00	4.50	.136	.202	.215	.194	.176	.181	.139
	50.00	5.00	.158	.212	.221	.193	.175	.176	.130
	55.00	5.50	.187	.224	.216	.190	.171	.163	.116
	60.00	6.00	.161	.231	.198	.181	.162	.149	.100
	65.00	6.50	.188	.217	.184	.126	.143	.122	.070
	70.00	7.00	.206	.196	.155	.127	.118	.099	.056
	75.00	7.50	.157						.036
80.00	8.00	.149	.163	.106	.091	.072	.043	.013	
85.00	8.50	.185	.125	.075	.059	.043	.012	.015	
90.00	9.00	.174	.088	.021	.032	.003	.020	.041	
95.00	9.50	.145	.055	.009	.003	.027	.049	.061	
95.00	9.50	.103	.008	.027	.019	.053	.078	.084	
LOWER SURFACE	M = 0.85    α = 0.0°								
	1.25	.25	.176	.102	.160	.167	.183		.219
	2.50	.50	.114	.073	.117	.138	.143	.117	.180
	5.00	.75	.045	.073	.119	.087	.147	.140	.170
	7.50	1.00	.026	.093	.132	.120	.161	.150	.204
	10.00	1.50	.005	.104	.146	.141	.163	.147	.215
	15.00	2.00	.038	.130	.165	.181	.156	.156	.216
	20.00	2.50	.083	.141	.181	.183	.173	.172	.191
	25.00	3.00	.055	.159	.195	.191	.179	.177	.169
	30.00	3.50	.126	.178	.204	.193	.183	.182	.160
	35.00	4.00	.134	.196	.212	.195	.185	.187	.151
	40.00	4.50	.140	.206	.223	.199	.188	.184	.143
	45.00	5.00	.166	.223	.223	.200	.190	.177	.132
	50.00	5.50	.204	.233	.221	.193	.179	.166	.118
	55.00	6.00	.200	.223	.205	.182	.168	.148	.102
	60.00	6.50	.208	.213	.185	.161	.146	.121	.078
	65.00	7.00	.219	.201	.168	.139	.116	.095	.052
	70.00	7.50	.197						.038
	75.00	8.00	.185	.161	.114	.087	.060	.039	.014
80.00	8.50	.153	.121	.085	.053	.041	.004	.005	
85.00	9.00	.175	.094	.049	.023	.011	.033	.028	
90.00	9.50	.158	.055	.018	.001	.017	.035	.049	
95.00	9.50	.150	.010	.031	.046	.048	.066	.077	
UPPER SURFACE	M = 0.85    α = 4.0°								
	1.25	.00	.036	.098	.057	.175	.338	.410	.281
	2.50	.25	.023	.098	.176	.243	.284	.205	.170
	5.00	.50	.124	.186	.080	.186	.216	.120	.136
	7.50	.75	.193	.424	.547	.743	.949	.843	.882
	10.00	1.00	.213	.380	.484	.512	.681	.655	.688
	15.00	1.50	.212	.360	.469	.465	.621	.593	.549
	20.00	2.00	.229	.338	.435	.455	.430	.472	.356
	25.00	2.50	.236	.328	.414	.433	.405	.408	.275
	30.00	3.00	.254	.332	.406	.404	.381	.362	.229
	35.00	3.50	.269	.338	.406	.377	.350	.327	.212
	40.00	4.00	.261	.345	.396	.349	.332	.285	.199
	45.00	4.50	.276	.357	.380	.330	.309	.255	.186
	50.00	5.00	.295	.361	.371	.306	.285	.224	.173
	55.00	5.50	.328	.389	.350	.281	.260	.200	.152
	60.00	6.00	.349	.388	.339	.257	.233	.174	.135
	65.00	6.50	.321	.330	.262	.186	.196	.141	.103
	70.00	7.00	.338	.299	.220	.180	.158	.111	.086
	75.00	7.50	.265						.069
80.00	8.00	.273	.223	.140	.114	.086	.052	.046	
85.00	8.50	.274	.164	.101	.073	.052	.019	.022	
90.00	9.00	.251	.110	.046	.036	.012	.012	.000	
95.00	9.50	.195	.062	.018	.008	.022	.042	.011	
95.00	9.50	.123	.010	.022	.019	.049	.066	.020	
LOWER SURFACE	M = 0.85    α = 4.0°								
	1.25	.25	.335	.356	.357	.342	.387		.360
	2.50	.50	.309	.283	.278	.276	.307	.328	.279
	5.00	.75	.253	.211	.194	.245	.219	.230	.179
	7.50	1.00	.222	.163	.149	.187	.164	.173	.094
	10.00	1.50	.196	.137	.114	.130	.123	.160	.043
	15.00	2.00	.149	.078	.069	.070	.088	.084	.043
	20.00	2.50	.098	.046	.027	.040	.042	.039	.028
	25.00	3.00	.101	.013	.002	.009	.014	.003	.103
	30.00	3.50	.044	.013	.030	.012	.009	.030	.108
	35.00	4.00	.016	.034	.048	.031	.031	.060	.108
	40.00	4.50	.006	.051	.065	.045	.046	.077	.107
	45.00	5.00	.023	.076	.077	.061	.064	.096	.105
	50.00	5.50	.052	.092	.087	.068	.068	.106	.100
	55.00	6.00	.084	.092	.085	.069	.074	.104	.088
	60.00	6.50	.073	.092	.077	.062	.067	.093	.070
	65.00	7.00	.086	.089	.073	.053	.055	.076	.050
	70.00	7.50	.080						.038
	75.00	8.00	.080	.076	.050	.034	.028	.036	.024
80.00	8.50	.064	.051	.026	.013	.019	.007	.010	
85.00	9.00	.082	.040	.003	.008	.001	.007	.001	
90.00	9.50	.071	.020	.011	.022	.020	.023	.025	
95.00	9.50	.088	.008	.044	.049	.036	.051	.044	

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:												
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2						
		M = 0.85    α = 5.0°													
UPPER SURFACE		0.00	.0285	-	.207	-	.347	-	.035	-	.710	-	.822	-	.718
		1.25	.158	-	1.194	-	1.298	-	1.331	-	1.465	-	1.326	-	1.007
		2.50	.273	-	1.098	-	1.115	-	1.239	-	1.435	-	1.273	-	.994
		3.75	.344	-	.788	-	.935	-	1.073	-	1.348	-	1.168	-	.930
		5.00	.368	-	.628	-	.817	-	.944	-	1.254	-	1.093	-	.883
		7.50	.345	-	.466	-	.756	-	.868	-	1.175	-	1.002	-	.828
		10.00	.349	-	.483	-	.668	-	.752	-	.880	-	.777	-	.728
		15.00	.346	-	.466	-	.600	-	.664	-	.614	-	.633	-	.543
		20.00	.363	-	.448	-	.565	-	.595	-	.444	-	.492	-	.450
		25.00	.360	-	.445	-	.545	-	.521	-	.375	-	.396	-	.372
		30.00	.351	-	.434	-	.523	-	.459	-	.346	-	.338	-	.312
		35.00	.363	-	.466	-	.500	-	.405	-	.317	-	.294	-	.272
		40.00	.378	-	.470	-	.469	-	.357	-	.289	-	.253	-	.242
		45.00	.419	-	.479	-	.425	-	.317	-	.261	-	.216	-	.216
		50.00	.375	-	.451	-	.352	-	.285	-	.230	-	.183	-	.189
		55.00	.415	-	.410	-	.299	-	.211	-	.190	-	.147	-	.172
		60.00	.443	-	.369	-	.250	-	.202	-	.155	-	.117	-	.162
		65.00	.352	-	-	-	-	-	-	-	-	-	-	-	.146
		70.00	.350	-	.262	-	.156	-	.135	-	.089	-	.062	-	.134
	75.00	.338	-	.193	-	.116	-	.099	-	.055	-	.033	-	.109	
	80.00	.302	-	.131	-	.059	-	.061	-	.021	-	.006	-	.090	
	85.00	.227	-	.079	-	.030	-	.023	-	.015	-	.021	-	.070	
	90.00	.227	-	-	-	-	-	-	-	-	-	-	-	-	
	95.00	.136	-	.019	-	.005	-	.006	-	.039	-	.043	-	-	
LOWER SURFACE		1.25	.381	-	.454	-	.437	-	.415	-	.453	-	-	-	.420
		2.50	.375	-	.381	-	.368	-	.345	-	.390	-	.410	-	.354
		3.75	.338	-	.303	-	.284	-	.308	-	.307	-	.317	-	.256
		5.00	.311	-	.247	-	.235	-	.255	-	.250	-	.260	-	.174
		7.50	.282	-	.217	-	.199	-	.198	-	.209	-	.219	-	.114
		10.00	.232	-	.153	-	.145	-	.143	-	.163	-	.163	-	.015
		15.00	.174	-	.113	-	.098	-	.105	-	.114	-	.108	-	.038
		20.00	.169	-	.079	-	.067	-	.074	-	.080	-	.068	-	.082
		25.00	.112	-	.052	-	.032	-	.051	-	.051	-	.031	-	.101
		30.00	.079	-	.023	-	.013	-	.022	-	.027	-	.004	-	.107
		35.00	.065	-	.003	-	.009	-	.002	-	.007	-	.030	-	.104
		40.00	.034	-	.023	-	.028	-	.017	-	.015	-	.056	-	.106
		45.00	.002	-	.042	-	.041	-	.028	-	.025	-	.074	-	.102
		50.00	.016	-	.047	-	.042	-	.033	-	.037	-	.081	-	.094
		55.00	.027	-	.050	-	.040	-	.033	-	.036	-	.074	-	.077
		60.00	.040	-	.083	-	.039	-	.029	-	.028	-	.065	-	.062
		65.00	.035	-	-	-	-	-	-	-	-	-	-	-	.048
		70.00	.044	-	.047	-	.033	-	.017	-	.013	-	.031	-	.034
		75.00	.029	-	.026	-	.013	-	.000	-	.011	-	.008	-	.021
	80.00	.050	-	.021	-	.003	-	.012	-	.001	-	.033	-	.110	
	85.00	.045	-	.009	-	.014	-	.021	-	.011	-	.016	-	.005	
	90.00	.053	-	.010	-	.044	-	.041	-	.029	-	.036	-	.012	
		M = 0.85    α = 8.0°													
UPPER SURFACE		0.00	.022	-	.494	-	.599	-	.228	-	.960	-	.834	-	.957
		1.25	.272	-	1.215	-	1.478	-	1.466	-	1.277	-	.749	-	1.105
		2.50	.404	-	1.198	-	1.417	-	1.427	-	1.262	-	.742	-	1.088
		3.75	.493	-	1.190	-	1.371	-	1.319	-	1.228	-	.713	-	1.067
		5.00	.503	-	1.139	-	1.190	-	1.223	-	1.197	-	.717	-	1.095
		7.50	.502	-	1.097	-	.969	-	1.139	-	1.172	-	.699	-	1.111
		10.00	.481	-	.935	-	.939	-	1.034	-	1.091	-	.661	-	.964
		15.00	.442	-	.658	-	.846	-	.901	-	1.023	-	.628	-	.831
		20.00	.454	-	.483	-	.781	-	.818	-	.967	-	.584	-	.731
		25.00	.457	-	.490	-	.782	-	.718	-	.897	-	.559	-	.636
		30.00	.434	-	.526	-	.685	-	.610	-	.830	-	.523	-	.550
		35.00	.429	-	.546	-	.640	-	.518	-	.753	-	.487	-	.443
		40.00	.423	-	.548	-	.566	-	.445	-	.673	-	.449	-	.343
		45.00	.488	-	.571	-	.466	-	.384	-	.588	-	.414	-	.238
		50.00	.467	-	.567	-	.343	-	.333	-	.498	-	.384	-	.223
		55.00	.527	-	.511	-	.313	-	.247	-	.402	-	.356	-	.207
		60.00	.560	-	.488	-	.289	-	.235	-	.301	-	.319	-	.204
		65.00	.460	-	-	-	-	-	-	-	-	-	-	-	.200
		70.00	.452	-	.262	-	.167	-	.161	-	.158	-	.277	-	.191
	75.00	.410	-	.189	-	.126	-	.127	-	.113	-	.230	-	.186	
	80.00	.337	-	.126	-	.074	-	.091	-	.065	-	.211	-	.170	
	85.00	.238	-	.074	-	.047	-	.050	-	.024	-	.193	-	.161	
	90.00	.142	-	.015	-	.018	-	.023	-	.002	-	.181	-	.152	
LOWER SURFACE		1.25	.403	-	.520	-	.484	-	.460	-	.478	-	.448	-	.427
		2.50	.427	-	.462	-	.431	-	.411	-	.440	-	.365	-	.378
		3.75	.419	-	.386	-	.387	-	.368	-	.369	-	.306	-	.289
		5.00	.403	-	.327	-	.306	-	.318	-	.314	-	.287	-	.210
		7.50	.369	-	.292	-	.270	-	.268	-	.268	-	.287	-	.153
		10.00	.317	-	.226	-	.216	-	.216	-	.221	-	.205	-	.062
		15.00	.286	-	.188	-	.164	-	.171	-	.169	-	.146	-	.011
		20.00	.248	-	.146	-	.128	-	.141	-	.132	-	.100	-	.028
		25.00	.185	-	.097	-	.097	-	.109	-	.099	-	.064	-	.027
		30.00	.143	-	.068	-	.068	-	.077	-	.073	-	.023	-	.103
		35.00	.128	-	.061	-	.046	-	.057	-	.047	-	.006	-	.105
		40.00	.092	-	.034	-	.030	-	.027	-	.021	-	.038	-	.113
		45.00	.062	-	.013	-	.006	-	.021	-	.008	-	.062	-	.114
		50.00	.039	-	.003	-	.001	-	.011	-	.012	-	.075	-	.109
		55.00	.021	-	.003	-	.000	-	.001	-	.012	-	.079	-	.097
		60.00	.014	-	.008	-	.008	-	.001	-	.012	-	.075	-	.084
		65.00	.009	-	-	-	-	-	-	-	-	-	-	-	.079
		70.00	.009	-	.012	-	.006	-	.008	-	.011	-	.060	-	.076
		75.00	.011	-	.004	-	.004	-	.013	-	.014	-	.049	-	.064
	80.00	.010	-	.008	-	.018	-	.024	-	.028	-	.038	-	.062	
	85.00	.014	-	.009	-	.018	-	.024	-	.028	-	.049	-	.062	
	90.00	.016	-	.020	-	.037	-	.038	-	.022	-	.067	-	.078	



TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:												
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2						
M = 0.85 $\alpha = 11.3^\circ$															
UPPER SURFACE		.00	.007	-	.887	-	1.015	-	.660	-	.873	-	.514	-	.515
		1.25	.451	-	1.479	-	1.384	-	1.146	-	.787	-	.483	-	.421
		2.50	.607	-	1.464	-	1.267	-	1.158	-	.783	-	.481	-	.422
		5.00	.749	-	1.499	-	1.246	-	1.136	-	.764	-	.465	-	.430
		7.50	.767	-	1.492	-	1.203	-	1.134	-	.755	-	.468	-	.430
		10.00	.749	-	1.461	-	1.193	-	1.131	-	.747	-	.463	-	.427
		15.00	.735	-	1.378	-	1.163	-	1.093	-	.731	-	.454	-	.397
		20.00	.670	-	1.330	-	1.111	-	1.050	-	.711	-	.441	-	.356
		25.00	.648	-	1.268	-	1.063	-	1.007	-	.687	-	.420	-	.323
		30.00	.627	-	.970	-	1.017	-	.962	-	.675	-	.415	-	.302
		35.00	.601	-	.546	-	.967	-	.921	-	.660	-	.405	-	.287
		40.00	.588	-	.566	-	.912	-	.876	-	.647	-	.391	-	.276
		45.00	.588	-	.596	-	.850	-	.829	-	.630	-	.384	-	.274
		50.00	.624	-	.620	-	.783	-	.785	-	.614	-	.377	-	.270
		55.00	.568	-	.619	-	.702	-	.737	-	.598	-	.372	-	.269
		60.00	.616	-	.577	-	.637	-	.701	-	.582	-	.367	-	.266
		65.00	.656	-	.490	-	.581	-	.642	-	.566	-	.367	-	.274
	LOWER SURFACE		.00	.007	-	.887	-	1.015	-	.660	-	.873	-	.514	-
		1.25	.451	-	1.479	-	1.384	-	1.146	-	.787	-	.483	-	.421
		2.50	.607	-	1.464	-	1.267	-	1.158	-	.783	-	.481	-	.422
		5.00	.749	-	1.499	-	1.246	-	1.136	-	.764	-	.465	-	.430
		7.50	.767	-	1.492	-	1.203	-	1.134	-	.755	-	.468	-	.430
		10.00	.749	-	1.461	-	1.193	-	1.131	-	.747	-	.463	-	.427
		15.00	.735	-	1.378	-	1.163	-	1.093	-	.731	-	.454	-	.397
		20.00	.670	-	1.330	-	1.111	-	1.050	-	.711	-	.441	-	.356
		25.00	.648	-	1.268	-	1.063	-	1.007	-	.687	-	.420	-	.323
		30.00	.627	-	.970	-	1.017	-	.962	-	.675	-	.415	-	.302
		35.00	.601	-	.546	-	.967	-	.921	-	.660	-	.405	-	.287
		40.00	.588	-	.566	-	.912	-	.876	-	.647	-	.391	-	.276
		45.00	.588	-	.596	-	.850	-	.829	-	.630	-	.384	-	.274
		50.00	.624	-	.620	-	.783	-	.785	-	.614	-	.377	-	.270
		55.00	.568	-	.619	-	.702	-	.737	-	.598	-	.372	-	.269
		60.00	.616	-	.577	-	.637	-	.701	-	.582	-	.367	-	.266
		65.00	.656	-	.490	-	.581	-	.642	-	.566	-	.367	-	.274
UPPER SURFACE			.00	.007	-	.887	-	1.015	-	.660	-	.873	-	.514	-
		1.25	.451	-	1.479	-	1.384	-	1.146	-	.787	-	.483	-	.421
		2.50	.607	-	1.464	-	1.267	-	1.158	-	.783	-	.481	-	.422
		5.00	.749	-	1.499	-	1.246	-	1.136	-	.764	-	.465	-	.430
		7.50	.767	-	1.492	-	1.203	-	1.134	-	.755	-	.468	-	.430
		10.00	.749	-	1.461	-	1.193	-	1.131	-	.747	-	.463	-	.427
		15.00	.735	-	1.378	-	1.163	-	1.093	-	.731	-	.454	-	.397
		20.00	.670	-	1.330	-	1.111	-	1.050	-	.711	-	.441	-	.356
		25.00	.648	-	1.268	-	1.063	-	1.007	-	.687	-	.420	-	.323
		30.00	.627	-	.970	-	1.017	-	.962	-	.675	-	.415	-	.302
		35.00	.601	-	.546	-	.967	-	.921	-	.660	-	.405	-	.287
		40.00	.588	-	.566	-	.912	-	.876	-	.647	-	.391	-	.276
		45.00	.588	-	.596	-	.850	-	.829	-	.630	-	.384	-	.274
		50.00	.624	-	.620	-	.783	-	.785	-	.614	-	.377	-	.270
		55.00	.568	-	.619	-	.702	-	.737	-	.598	-	.372	-	.269
		60.00	.616	-	.577	-	.637	-	.701	-	.582	-	.367	-	.266
		65.00	.656	-	.490	-	.581	-	.642	-	.566	-	.367	-	.274
	LOWER SURFACE		.00	.007	-	.887	-	1.015	-	.660	-	.873	-	.514	-
		1.25	.451	-	1.479	-	1.384	-	1.146	-	.787	-	.483	-	.421
		2.50	.607	-	1.464	-	1.267	-	1.158	-	.783	-	.481	-	.422
		5.00	.749	-	1.499	-	1.246	-	1.136	-	.764	-	.465	-	.430
		7.50	.767	-	1.492	-	1.203	-	1.134	-	.755	-	.468	-	.430
		10.00	.749	-	1.461	-	1.193	-	1.131	-	.747	-	.463	-	.427
		15.00	.735	-	1.378	-	1.163	-	1.093	-	.731	-	.454	-	.397
		20.00	.670	-	1.330	-	1.111	-	1.050	-	.711	-	.441	-	.356
		25.00	.648	-	1.268	-	1.063	-	1.007	-	.687	-	.420	-	.323
		30.00	.627	-	.970	-	1.017	-	.962	-	.675	-	.415	-	.302
		35.00	.601	-	.546	-	.967	-	.921	-	.660	-	.405	-	.287
		40.00	.588	-	.566	-	.912	-	.876	-	.647	-	.391	-	.276
		45.00	.588	-	.596	-	.850	-	.829	-	.630	-	.384	-	.274
		50.00	.624	-	.620	-	.783	-	.785	-	.614	-	.377	-	.270
		55.00	.568	-	.619	-	.702	-	.737	-	.598	-	.372	-	.269
		60.00	.616	-	.577	-	.637	-	.701	-	.582	-	.367	-	.266
		65.00	.656	-	.490	-	.581	-	.642	-	.566	-	.367	-	.274
UPPER SURFACE			.00	.007	-	.887	-	1.015	-	.660	-	.873	-	.514	-
		1.25	.451	-	1.479	-	1.384	-	1.146	-	.787	-	.483	-	.421
		2.50	.607	-	1.464	-	1.267	-	1.158	-	.783	-	.481	-	.422
		5.00	.749	-	1.499	-	1.246	-	1.136	-	.764	-	.465	-	.430
		7.50	.767	-	1.492	-	1.203	-	1.134	-	.755	-	.468	-	.430
		10.00	.749	-	1.461	-	1.193	-	1.131	-	.747	-	.463	-	.427
		15.00	.735	-	1.378	-	1.163	-	1.093	-	.731	-	.454	-	.397
		20.00	.670	-	1.330	-	1.111	-	1.050	-	.711	-	.441	-	.356
		25.00	.648	-	1.268	-	1.063	-	1.007	-	.687	-	.420	-	.323
		30.00	.627	-	.970	-	1.017	-	.962	-	.675	-	.415	-	.302
		35.00	.601	-	.546	-	.967	-	.921	-	.660	-	.405	-	.287
		40.00	.588	-	.566	-	.912	-	.876	-	.647	-	.391	-	.276
		45.00	.588	-	.596	-	.850	-	.829	-	.630	-	.384	-	.274
		50.00	.624	-	.620	-	.783	-	.785	-	.614	-	.377	-	.270
		55.00	.568	-	.619	-	.702	-	.737	-	.598	-	.372	-	.269
		60.00	.616	-	.577	-	.637	-	.701	-	.582	-	.367	-	.266
		65.00	.656	-	.490	-	.581	-	.642	-	.566	-	.367	-	.274
	LOWER SURFACE		.00	.007	-	.887	-	1.015	-	.660	-	.873	-	.514	-
		1.25	.451	-	1.479	-	1.384	-	1.146	-	.787	-	.483	-	.421
		2.50	.607	-	1.464	-	1.267	-	1.158	-	.783	-	.481	-	.422
		5.00	.749	-	1.499	-	1.246	-	1.136	-	.764	-	.465	-	.430
		7.50	.767	-	1.492	-	1.203	-	1.134	-	.755	-	.468	-	.430
		10.00	.749	-	1.461	-	1.193	-	1.131	-	.747	-	.463	-	.427
		15.00	.735	-	1.378	-	1.163	-	1.093	-	.731	-	.454	-	.397
		20.00	.670	-	1.330	-	1.111	-	1.050	-	.711	-	.441	-	.356
		25.00	.648	-	1.268	-	1.063	-	1.007	-	.687	-	.420	-	.323
		30.00	.627	-	.970	-	1.017	-	.962	-	.675	-	.415	-	.302
		35.00	.601	-	.546	-	.967	-	.921	-	.660	-	.405	-	.287
		40.00	.588	-	.566	-	.912	-	.876	-	.647	-	.391	-	.276
		45.00	.588	-	.596	-	.850	-	.829	-	.630	-	.384	-	.274
		50.00	.624	-	.620	-	.783	-	.785	-	.614	-	.377	-	.270
		55.00	.568	-	.619	-	.702	-	.737	-	.598	-	.372	-	.269
		60.00	.616	-	.577	-	.637	-	.701	-	.582	-	.367	-	.266
		65.00	.656	-	.490	-	.581	-	.642	-	.566	-	.367	-	.274

TABLE I

BASIC WING

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.85 $\alpha = 19.6^\circ$							
	.00	.030	1.080	.895	.841	.666	.567	.492
	1.25	.648	1.010	.870	.737	.662	.552	.477
	2.50	.818	1.008	.851	.734	.663	.558	.476
	5.00	.957	.997	.863	.748	.652	.548	.481
	7.50	1.039	.989	.844	.752	.649	.548	.474
	10.00	1.027	.984	.846	.748	.648	.548	.467
	15.00	1.023	.963	.844	.726	.643	.549	.461
	20.00	.987	.954	.835	.720	.639	.541	.462
	25.00	.947	.942	.827	.717	.628	.523	.459
	30.00	.904	.936	.823	.715	.624	.530	.466
	35.00	.858	.925	.818	.709	.618	.528	.469
	40.00	.817	.910	.809	.701	.612	.520	.468
	45.00	.785	.895	.797	.696	.608	.519	.467
	50.00	.781	.886	.786	.686	.603	.519	.466
	55.00	.729	.873	.778	.686	.595	.513	.460
	60.00	.738	.857	.778	.683	.596	.507	.453
	65.00	.734	.858	.783	.679	.599	.508	.460
	70.00	.686						.440
	LOWER SURFACE	75.00	.772	.818	.751	.661	.579	.488
80.00		.686	.804	.735	.655	.572	.477	.421
85.00		.672	.784	.722	.646	.563	.465	.417
90.00		.641	.763	.703	.631	.552	.453	.402
95.00		.584	.740	.689	.621	.538	.436	.386
1.25		.217	.573	.459	.509	.421		.374
2.50		.402	.661	.573	.541	.506	.492	.421
5.00		.661	.668	.583	.542	.512	.475	.394
7.50		.774	.640	.563	.522	.486	.446	.337
10.00		.754	.612	.539	.500	.455	.396	.297
15.00		.696	.554	.492	.444	.409	.361	.209
20.00		.621	.505	.437	.398	.353	.305	.122
25.00		.580	.460	.393	.349	.306	.248	.050
30.00		.538	.413	.352	.307	.260	.195	.018
35.00		.469	.376	.308	.266	.218	.138	.074
40.00		.437	.338	.271	.219	.173	.090	.105
45.00		.392	.299	.231	.179	.125	.039	.142
50.00		.350	.260	.191	.136	.087	.014	.169
55.00		.311	.227	.152	.097	.045	.062	.194
60.00		.276	.196	.126	.061	.011	.100	.804
65.00	.253	.165	.078	.024	.025	.141	.831	
70.00	.222						.842	
75.00	.154	.103	.001	.048	.089	.198	.872	
80.00	.151	.076	.038	.082	.134	.234	.872	
85.00	.111	.010	.085	.128	.172	.257	.855	
90.00	.053	.053	.155	.184	.239	.296	.853	
95.00	.020	.163	.230	.254	.297	.319	.806	
UPPER SURFACE	M = 0.85 $\alpha = 26.0^\circ$							
	.00	.115	.881	.880	.811	.780	.697	.600
	1.25	.554	.885	.879	.796	.781	.694	.587
	2.50	.897	.880	.865	.798	.781	.709	.587
	5.00	.889	.884	.880	.803	.788	.706	.591
	7.50	.889	.886	.868	.807	.791	.732	.586
	10.00	.885	.887	.872	.819	.790	.750	.577
	15.00	.887	.881	.875	.812	.813	.711	.573
	20.00	.882	.887	.873	.811	.824	.682	.572
	25.00	.878	.886	.877	.815	.799	.662	.569
	30.00	.880	.888	.887	.820	.786	.671	.575
	35.00	.873	.889	.886	.817	.776	.669	.578
	40.00	.865	.889	.879	.816	.769	.662	.578
	45.00	.853	.889	.873	.813	.769	.657	.577
	50.00	.839	.887	.865	.809	.759	.649	.565
	55.00	.837	.885	.861	.808	.753	.639	.552
	60.00	.836	.890	.868	.804	.753	.644	.556
	65.00	.805						.510
	70.00	.898	.871	.848	.783	.726	.611	.515
	75.00	.811	.867	.840	.776	.718	.594	.501
80.00	.804	.857	.830	.767	.703	.577	.494	
85.00	.783	.843	.826	.758	.693	.562	.476	
90.00	.736	.825	.823	.753	.678	.541	.465	
LOWER SURFACE	1.25	.046	.511	.358	.420	.293		.256
	2.50	.292	.686	.567	.530	.475	.460	.395
	5.00	.661	.749	.640	.577	.541	.498	.420
	7.50	.842	.743	.639	.576	.543	.498	.395
	10.00	.840	.732	.632	.571	.538	.471	.366
	15.00	.816	.687	.600	.543	.499	.444	.301
	20.00	.758	.649	.557	.508	.454	.396	.209
	25.00	.717	.605	.518	.468	.413	.347	.144
	30.00	.668	.565	.478	.428	.368	.294	.070
	35.00	.619	.526	.441	.388	.326	.242	.009
	40.00	.583	.488	.398	.334	.288	.192	.042
	45.00	.541	.443	.356	.294	.238	.138	.079
	50.00	.500	.404	.316	.251	.193	.083	.118
	55.00	.460	.369	.277	.208	.149	.029	.151
	60.00	.423	.335	.240	.167	.107	.015	.173
	65.00	.399	.298	.192	.128	.070	.067	.208
	70.00	.352						.237
	75.00	.292	.222	.096	.041	.003	.143	.246
	80.00	.259	.185	.050	.001	.064	.160	.279
	85.00	.210	.103	.001	.081	.118	.227	.300
90.00	.138	.037	.001	.189	.148	.269	.317	
95.00	.076	.092	.173	.214	.274	.341	.349	

TABLE I

BASIC WING

		PRESSURE COEFFICIENT, P, AT:						
PERCENT CHORD		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.90 $\alpha = 0.0^\circ$								
UPPER SURFACE	0.00	.030	.530	.459	.720	.464	.487	.453
	1.25	.030	.530	.459	.720	.464	.487	.453
	2.50	.030	.530	.459	.720	.464	.487	.453
	3.75	.030	.530	.459	.720	.464	.487	.453
	5.00	.030	.530	.459	.720	.464	.487	.453
	7.50	.030	.530	.459	.720	.464	.487	.453
	10.00	.030	.530	.459	.720	.464	.487	.453
	15.00	.030	.530	.459	.720	.464	.487	.453
	20.00	.030	.530	.459	.720	.464	.487	.453
	25.00	.030	.530	.459	.720	.464	.487	.453
	30.00	.030	.530	.459	.720	.464	.487	.453
	35.00	.030	.530	.459	.720	.464	.487	.453
	40.00	.030	.530	.459	.720	.464	.487	.453
	45.00	.030	.530	.459	.720	.464	.487	.453
	50.00	.030	.530	.459	.720	.464	.487	.453
	55.00	.030	.530	.459	.720	.464	.487	.453
	60.00	.030	.530	.459	.720	.464	.487	.453
	65.00	.030	.530	.459	.720	.464	.487	.453
LOWER SURFACE	0.00	.030	.530	.459	.720	.464	.487	.453
	1.25	.030	.530	.459	.720	.464	.487	.453
	2.50	.030	.530	.459	.720	.464	.487	.453
	3.75	.030	.530	.459	.720	.464	.487	.453
	5.00	.030	.530	.459	.720	.464	.487	.453
	7.50	.030	.530	.459	.720	.464	.487	.453
	10.00	.030	.530	.459	.720	.464	.487	.453
	15.00	.030	.530	.459	.720	.464	.487	.453
	20.00	.030	.530	.459	.720	.464	.487	.453
	25.00	.030	.530	.459	.720	.464	.487	.453
	30.00	.030	.530	.459	.720	.464	.487	.453
	35.00	.030	.530	.459	.720	.464	.487	.453
	40.00	.030	.530	.459	.720	.464	.487	.453
	45.00	.030	.530	.459	.720	.464	.487	.453
	50.00	.030	.530	.459	.720	.464	.487	.453
	55.00	.030	.530	.459	.720	.464	.487	.453
	60.00	.030	.530	.459	.720	.464	.487	.453
	65.00	.030	.530	.459	.720	.464	.487	.453
M = 0.90 $\alpha = 4.0^\circ$								
UPPER SURFACE	0.00	.036	.165	.038	.280	.215	.309	.217
	1.25	.036	.165	.038	.280	.215	.309	.217
	2.50	.036	.165	.038	.280	.215	.309	.217
	3.75	.036	.165	.038	.280	.215	.309	.217
	5.00	.036	.165	.038	.280	.215	.309	.217
	7.50	.036	.165	.038	.280	.215	.309	.217
	10.00	.036	.165	.038	.280	.215	.309	.217
	15.00	.036	.165	.038	.280	.215	.309	.217
	20.00	.036	.165	.038	.280	.215	.309	.217
	25.00	.036	.165	.038	.280	.215	.309	.217
	30.00	.036	.165	.038	.280	.215	.309	.217
	35.00	.036	.165	.038	.280	.215	.309	.217
	40.00	.036	.165	.038	.280	.215	.309	.217
	45.00	.036	.165	.038	.280	.215	.309	.217
	50.00	.036	.165	.038	.280	.215	.309	.217
	55.00	.036	.165	.038	.280	.215	.309	.217
	60.00	.036	.165	.038	.280	.215	.309	.217
	65.00	.036	.165	.038	.280	.215	.309	.217
LOWER SURFACE	0.00	.036	.165	.038	.280	.215	.309	.217
	1.25	.036	.165	.038	.280	.215	.309	.217
	2.50	.036	.165	.038	.280	.215	.309	.217
	3.75	.036	.165	.038	.280	.215	.309	.217
	5.00	.036	.165	.038	.280	.215	.309	.217
	7.50	.036	.165	.038	.280	.215	.309	.217
	10.00	.036	.165	.038	.280	.215	.309	.217
	15.00	.036	.165	.038	.280	.215	.309	.217
	20.00	.036	.165	.038	.280	.215	.309	.217
	25.00	.036	.165	.038	.280	.215	.309	.217
	30.00	.036	.165	.038	.280	.215	.309	.217
	35.00	.036	.165	.038	.280	.215	.309	.217
	40.00	.036	.165	.038	.280	.215	.309	.217
	45.00	.036	.165	.038	.280	.215	.309	.217
	50.00	.036	.165	.038	.280	.215	.309	.217
	55.00	.036	.165	.038	.280	.215	.309	.217
	60.00	.036	.165	.038	.280	.215	.309	.217
	65.00	.036	.165	.038	.280	.215	.309	.217

TABLE I

BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
<b>M = 0.90    <math>\alpha = 6.0^\circ</math></b>							
UPPER SURFACE	.00	.0285	-.072	-.197	-.086	-.511	-.581
	1.25	.087	-.019	-.257	-.277	-.1.311	-.1.138
	2.50	.199	-.008	-.304	-.313	-.1.317	-.1.128
	3.75	.284	.735	-.096	-.235	-.1.255	-.1.070
	5.00	.308	.632	.961	-.1.121	-.1.199	-.1.018
	7.50	.308	.566	.771	-.1.058	-.1.157	-.832
	10.00	.313	.473	.535	-.1.885	-.1.052	-.728
	12.50	.313	.435	.491	-.1.545	-.1.027	-.646
	15.00	.313	.421	.497	-.1.541	-.814	-.540
	17.50	.313	.416	.516	-.1.558	-.622	-.439
	20.00	.313	.426	.522	-.1.597	-.596	-.390
	22.50	.313	.442	.536	-.1.616	-.563	-.336
	25.00	.313	.450	.555	-.1.623	-.537	-.288
	27.50	.313	.474	.565	-.1.537	-.517	-.251
	30.00	.313	.492	.565	-.1.419	-.475	-.214
	32.50	.313	.489	.565	-.1.288	-.411	-.187
	35.00	.313	.452	.516	-.1.172	-.309	-.167
LOWER SURFACE	.00	.0285	-.072	-.197	-.086	-.511	-.581
	1.25	.087	-.019	-.257	-.277	-.1.311	-.1.138
	2.50	.199	-.008	-.304	-.313	-.1.317	-.1.128
	3.75	.284	.735	-.096	-.235	-.1.255	-.1.070
	5.00	.308	.632	.961	-.1.121	-.1.199	-.1.018
	7.50	.308	.566	.771	-.1.058	-.1.157	-.832
	10.00	.313	.473	.535	-.1.885	-.1.052	-.728
	12.50	.313	.435	.491	-.1.545	-.1.027	-.646
	15.00	.313	.421	.497	-.1.541	-.814	-.540
	17.50	.313	.416	.516	-.1.558	-.622	-.439
	20.00	.313	.426	.522	-.1.597	-.596	-.390
	22.50	.313	.442	.536	-.1.616	-.563	-.336
	25.00	.313	.450	.555	-.1.623	-.537	-.288
	27.50	.313	.474	.565	-.1.537	-.517	-.251
	30.00	.313	.492	.565	-.1.419	-.475	-.214
	32.50	.313	.489	.565	-.1.288	-.411	-.187
	35.00	.313	.452	.516	-.1.172	-.309	-.167
UPPER SURFACE	.00	.0285	-.072	-.197	-.086	-.511	-.581
	1.25	.087	-.019	-.257	-.277	-.1.311	-.1.138
	2.50	.199	-.008	-.304	-.313	-.1.317	-.1.128
	3.75	.284	.735	-.096	-.235	-.1.255	-.1.070
	5.00	.308	.632	.961	-.1.121	-.1.199	-.1.018
	7.50	.308	.566	.771	-.1.058	-.1.157	-.832
	10.00	.313	.473	.535	-.1.885	-.1.052	-.728
	12.50	.313	.435	.491	-.1.545	-.1.027	-.646
	15.00	.313	.421	.497	-.1.541	-.814	-.540
	17.50	.313	.416	.516	-.1.558	-.622	-.439
	20.00	.313	.426	.522	-.1.597	-.596	-.390
	22.50	.313	.442	.536	-.1.616	-.563	-.336
	25.00	.313	.450	.555	-.1.623	-.537	-.288
	27.50	.313	.474	.565	-.1.537	-.517	-.251
	30.00	.313	.492	.565	-.1.419	-.475	-.214
	32.50	.313	.489	.565	-.1.288	-.411	-.187
	35.00	.313	.452	.516	-.1.172	-.309	-.167
LOWER SURFACE	.00	.0285	-.072	-.197	-.086	-.511	-.581
	1.25	.087	-.019	-.257	-.277	-.1.311	-.1.138
	2.50	.199	-.008	-.304	-.313	-.1.317	-.1.128
	3.75	.284	.735	-.096	-.235	-.1.255	-.1.070
	5.00	.308	.632	.961	-.1.121	-.1.199	-.1.018
	7.50	.308	.566	.771	-.1.058	-.1.157	-.832
	10.00	.313	.473	.535	-.1.885	-.1.052	-.728
	12.50	.313	.435	.491	-.1.545	-.1.027	-.646
	15.00	.313	.421	.497	-.1.541	-.814	-.540
	17.50	.313	.416	.516	-.1.558	-.622	-.439
	20.00	.313	.426	.522	-.1.597	-.596	-.390
	22.50	.313	.442	.536	-.1.616	-.563	-.336
	25.00	.313	.450	.555	-.1.623	-.537	-.288
	27.50	.313	.474	.565	-.1.537	-.517	-.251
	30.00	.313	.492	.565	-.1.419	-.475	-.214
	32.50	.313	.489	.565	-.1.288	-.411	-.187
	35.00	.313	.452	.516	-.1.172	-.309	-.167

TABLE I

BASIC WING

PERCENT CHORD		PRESSURE COEFFICIENT, $P_i$ AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.90 $\alpha = 11.4^\circ$								
UPPER SURFACE	.00	.005	-.713	-.800	-.436	-.568	-.361	-.478
	1.25	.346	1.358	1.426	1.073	.523	.529	.400
	2.50	.493	1.344	1.349	1.073	.503	.446	.402
	5.00	.636	1.380	1.388	1.085	.463	.425	.417
	7.50	.684	1.348	1.282	1.115	.403	.373	.407
	10.00	.657	1.303	1.249	1.129	.367	.329	.385
	15.00	.658	1.208	1.189	1.102	.299	.255	.370
	20.00	.604	1.143	1.131	1.064	.246	.208	.353
	25.00	.592	1.076	1.087	1.048	.203	.157	.327
	30.00	.576	.934	1.047	1.019	.165	.105	.318
	35.00	.556	.683	1.009	.981	.126	.060	.311
	40.00	.550	.574	.971	.934	.089	.012	.307
	45.00	.547	.595	.923	.887	.059	.034	.309
	50.00	.578	.631	.879	.837	.025	.076	.312
	55.00	.525	.651	.826	.788	.009	.116	.312
	60.00	.571	.661	.781	.756	.036	.141	.314
	65.00	.618	.631	.712	.708	.062	.167	.312
	LOWER SURFACE	70.00	.573					
75.00		.525	.651	.492	.619	.114	.193	.322
80.00		.643	.593	.416	.581	.138	.201	.329
85.00		.643	.383	.338	.546	.154	.209	.328
90.00		.587	.244	.280	.497	.187	.231	.315
95.00		.433	.159	.237	.467	.243	.251	.311
1.25		.388	.587	.522	.508	.824		.439
2.50		.474	.558	.508	.473	.811	.489	.414
5.00		.540	.498	.448	.445	.775	.506	.334
7.50		.557	.444	.404	.396	.765	.506	.255
10.00		.524	.410	.368	.353	.758	.501	.203
15.00		.464	.339	.313	.288	.746	.487	.109
20.00		.388	.293	.257	.244	.736	.467	.009
25.00		.363	.250	.216	.200	.702	.447	.032
30.00		.297	.210	.179	.168	.702	.445	.087
35.00		.251	.176	.146	.132	.680	.444	.129
40.00		.229	.148	.113	.099	.663	.437	.152
45.00		.188	.113	.088	.069	.647	.426	.155
50.00	.150	.082	.059	.043	.628	.426	.172	
55.00	.120	.063	.040	.022	.614	.423	.185	
60.00	.096	.047	.029	.005	.598	.423	.187	
65.00	.080	.029	.006	.018	.584	.442	.209	
70.00	.068						.213	
75.00	.015	.009	.017	.041	.522	.436	.211	
80.00	.037	.008	.018	.051	.513	.426	.244	
85.00	.016	.018	.025	.071	.497	.426	.243	
90.00	.001	.038	.044	.110	.488	.407	.242	
95.00	.008	.053	.056	.155	.458	.375	.255	
M = 0.90 $\alpha = 15.8^\circ$								
UPPER SURFACE	.00	.000	1.065	1.027	.865	.684	.517	.460
	1.25	.491	1.468	.951	.773	.670	.505	.336
	2.50	.700	1.443	.925	.771	.667	.509	.335
	5.00	.880	1.452	.954	.770	.680	.496	.345
	7.50	.907	1.457	.946	.782	.656	.499	.345
	10.00	.896	1.439	.954	.792	.655	.497	.3430
	15.00	.882	1.352	.962	.780	.650	.492	.328
	20.00	.812	1.291	.948	.769	.640	.482	.328
	25.00	.764	1.206	.932	.758	.629	.468	.320
	30.00	.718	1.154	.923	.751	.622	.468	.321
	35.00	.670	1.108	.908	.742	.612	.466	.320
	40.00	.622	1.008	.893	.730	.604	.458	.318
	45.00	.566	.903	.881	.718	.594	.454	.315
	50.00	.533	.833	.867	.709	.587	.453	.315
	55.00	.500	.758	.846	.699	.578	.446	.310
	60.00	.465	.681	.827	.695	.572	.442	.313
	65.00	.431	.600	.797	.690	.578	.449	.310
	LOWER SURFACE	70.00	.393	.523	.777	.660		
75.00		.357	.463	.757	.646	.549	.433	.3381
80.00		.311	.411	.731	.633	.537	.424	.3381
85.00		.269	.369	.712	.607	.525	.417	.3381
90.00		.239	.328	.705	.599	.511	.412	.3381
95.00		.219	.287			.497	.404	.3386
1.25		.357	.621	.521	.548	.472		.4419
2.50		.482	.566	.531	.531	.470	.498	.428
5.00		.643	.541	.516	.516	.448	.448	.378
7.50		.678	.507	.478	.478	.406	.406	.303
10.00		.612	.474	.441	.441	.383	.391	.284
15.00		.534	.423	.383	.383	.331	.310	.161
20.00		.498	.368	.335	.335	.298	.280	.073
25.00		.435	.324	.289	.289	.248	.197	.008
30.00		.384	.288	.250	.250	.205	.143	.071
35.00		.356	.269	.237	.237	.183	.108	.187
40.00		.314	.230	.207	.207	.153	.088	.168
45.00		.273	.198	.175	.175	.128	.043	.191
50.00	.239	.171	.157	.157	.100	.014	.191	
55.00	.208	.148	.136	.136	.086	.063	.217	
60.00	.190	.121	.106	.106	.066	.109	.217	
65.00	.166		.081	.081	.055	.147	.244	
70.00	.148					.187	.268	
75.00	.128	.080	.069	.069	.109	.237	.269	
80.00	.115	.063	.036	.094	.153	.283	.289	
85.00	.083	.028	.047	.131	.186	.315	.297	
90.00	.044	.022	.033	.119	.173	.325	.295	
95.00	.023	.006	.016	.051	.108	.334	.305	

TABLE 1

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:								
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2		
		M = 0.90    α = 19.8°									
UPPER SURFACE		.00	-.043	-1.106	-.932	-.859	-.784	-.596	-.533		
		1.25	-.601	-1.086	-.911	-.763	-.728	-.589	-.520		
		2.50	-.834	-1.087	-.885	-.766	-.730	-.592	-.518		
		5.00	-1.127	-1.086	-.905	-.778	-.697	-.580	-.526		
		7.50	-1.117	-1.072	-.887	-.792	-.687	-.594	-.522		
		10.00	-1.083	-1.060	-.887	-.788	-.682	-.596	-.518		
		15.00	-1.063	-1.027	-.887	-.757	-.680	-.592	-.509		
		20.00	-.981	-1.017	-.873	-.752	-.674	-.583	-.507		
		25.00	-.920	-.997	-.861	-.752	-.665	-.585	-.503		
		30.00	-.854	-.989	-.856	-.749	-.664	-.572	-.509		
		35.00	-.798	-.973	-.848	-.745	-.656	-.571	-.517		
		40.00	-.765	-.954	-.837	-.737	-.651	-.566	-.513		
		45.00	-.738	-.932	-.829	-.730	-.645	-.563	-.514		
		50.00	-.746	-.916	-.821	-.726	-.639	-.562	-.510		
		55.00	-.695	-.896	-.813	-.721	-.631	-.556	-.504		
		60.00	-.719	-.875	-.801	-.717	-.625	-.552	-.496		
		65.00	-.726	-.866	-.806	-.715	-.632	-.558	-.503		
	LOWER SURFACE		70.00	-.665						-.490	
		75.00	-.725	-.822	-.773	-.699	-.609	-.539	-.471		
		80.00	-.688	-.807	-.764	-.689	-.604	-.528	-.459		
		85.00	-.661	-.779	-.748	-.682	-.597	-.515	-.453		
		90.00	-.624	-.755	-.732	-.670	-.590	-.504	-.439		
		95.00	-.550	-.727	-.723	-.664	-.586	-.487	-.428		
		1.25	.233	.604	.487	.533	.423	.499	.378		
		2.50	.443	.686	.591	.552	.514	.499	.431		
		5.00	.699	.690	.601	.553	.518	.484	.406		
		7.50	.807	.662	.583	.532	.495	.455	.354		
		10.00	.779	.636	.560	.507	.466	.417	.313		
		15.00	.719	.574	.514	.457	.421	.373	.288		
		20.00	.644	.529	.461	.412	.368	.317	.240		
		25.00	.603	.488	.417	.363	.320	.269	.202		
		30.00	.546	.440	.376	.326	.284	.239	.170		
		35.00	.496	.402	.337	.284	.241	.199	.135		
		40.00	.464	.366	.296	.241	.199	.159	.100		
		45.00	.420	.328	.261	.217	.175	.135	.070		
UPPER SURFACE		50.00	.377	.288	.218	.177	.135	.093	.028		
		55.00	.339	.257	.186	.120	.062	-.008	-.078		
		60.00	.306	.228	.158	.083	.027	-.058	-.128		
		65.00	.289	.200	.115	.046	-.007	-.088	-.158		
		70.00	.252						-.221		
		75.00	.188	.143	.040	-.027	-.072	-.201	-.299		
		80.00	.181	.118	.002	-.059	-.117	-.252	-.327		
		85.00	.140	.044	.043	-.099	-.160	-.291	-.343		
		90.00	.089	.002	.110	-.162	-.230	-.332	-.348		
		95.00	.052	.104	.185	-.232	-.288	-.372	-.360		
			M = 0.90    α = 26.2°								
	UPPER SURFACE		.00	-.161	-.920	-.901	-.804	-.811	-.781	-.640	
			1.25	-.475	-.903	-.881	-.777	-.790	-.762	-.611	
			2.50	-.925	-.898	-.862	-.780	-.783	-.789	-.605	
			5.00	-.912	-.899	-.881	-.788	-.778	-.803	-.584	
			7.50	-.898	-.900	-.864	-.792	-.783	-.859	-.595	
			10.00	-.900	-.903	-.872	-.787	-.783	-.893	-.603	
			15.00	-.899	-.896	-.867	-.805	-.774	-.767	-.596	
		20.00	-.904	-.909	-.876	-.805	-.776	-.701	-.599		
		25.00	-.905	-.912	-.886	-.820	-.779	-.677	-.608		
		30.00	-.896	-.906	-.886	-.817	-.775	-.680	-.609		
		35.00	-.888	-.905	-.884	-.817	-.774	-.678	-.610		
		40.00	-.871	-.906	-.874	-.818	-.776	-.679	-.613		
		45.00	-.867	-.904	-.868	-.817	-.778	-.675	-.614		
		50.00	-.867	-.896	-.861	-.813	-.776	-.674	-.612		
		55.00	-.842	-.895	-.854	-.818	-.778	-.674	-.613		
		60.00	-.846	-.895	-.856	-.804	-.769	-.672	-.600		
		65.00	-.842	-.856	-.827	-.779	-.739	-.642	-.573		
LOWER SURFACE			70.00	-.798						-.590	
		75.00	-.885	-.875	-.845	-.789	-.748	-.650	-.570		
		80.00	-.815	-.869	-.843	-.782	-.744	-.640	-.588		
		85.00	-.806	-.852	-.840	-.772	-.731	-.624	-.530		
		90.00	-.781	-.841	-.829	-.763	-.718	-.599	-.516		
		95.00	-.723	-.824	-.822	-.760	-.701	-.578	-.500		
		1.25	.089	.539	.394	.440	.320		.273		
		2.50	.327	.706	.629	.560	.492		.409		
		5.00	.691	.766	.660	.601	.557	.474	.437		
		7.50	.863	.782	.665	.603	.560	.518	.413		
		10.00	.883	.750	.655	.598	.548	.492	.386		
		15.00	.838	.705	.626	.569	.518	.470	.334		
		20.00	.777	.668	.583	.533	.474	.422	.286		
		25.00	.737	.628	.545	.491	.435	.373	.265		
		30.00	.689	.583	.508	.453	.393	.327	.229		
		35.00	.641	.543	.470	.414	.352	.287	.203		
		40.00	.606	.508	.430	.373	.314	.247	.161		
		45.00	.563	.462	.393	.331	.266	.201	.113		
	50.00	.528	.425	.350	.284	.218	.152	.063			
	55.00	.486	.394	.313	.247	.182	.116	.027			
	60.00	.449	.361	.278	.206	.140	.074	.008			
	65.00	.431	.331	.236	.173	.115					
	70.00	.377									
	75.00	.319	.253	.142	.083	.031	-.083	-.181			
	80.00	.286	.219	.097	.048	-.027	-.152	-.253			
	85.00	.239	.180	.046	.001	-.071	-.186	-.289			
	90.00	.168	.082	-.026	-.076	-.097	-.230	-.319			
	95.00	.112	-.038	-.110	-.158	-.227	-.313	-.362			

TABLE I

## BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:											
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.96b/2					
UPPER SURFACE	M = 0.94    α = 0.0°													
	1.00	.027	-	.541	-	.462	-	.723	-	.445	-	.485	-	.465
	1.25	.234	-	.053	-	.098	-	.109	-	.077	-	.072	-	.081
	2.50	.166	-	.042	-	.084	-	.120	-	.150	-	.171	-	.080
	5.00	.095	-	.045	-	.095	-	.135	-	.122	-	.095	-	.097
	7.50	.054	-	.062	-	.105	-	.135	-	.167	-	.118	-	.137
	10.00	.038	-	.076	-	.126	-	.143	-	.191	-	.131	-	.178
	15.00	.005	-	.096	-	.148	-	.197	-	.200	-	.151	-	.220
	20.00	.035	-	.119	-	.174	-	.218	-	.235	-	.157	-	.279
	25.00	.067	-	.141	-	.195	-	.246	-	.259	-	.171	-	.270
	30.00	.090	-	.161	-	.231	-	.254	-	.249	-	.190	-	.234
	35.00	.095	-	.187	-	.250	-	.270	-	.219	-	.202	-	.233
	40.00	.119	-	.208	-	.272	-	.295	-	.172	-	.220	-	.218
	45.00	.146	-	.228	-	.285	-	.325	-	.157	-	.244	-	.208
	50.00	.185	-	.257	-	.296	-	.325	-	.171	-	.253	-	.208
	55.00	.164	-	.273	-	.323	-	.255	-	.175	-	.205	-	.208
	60.00	.204	-	.267	-	.338	-	.103	-	.161	-	.115	-	.255
	65.00	.243	-	.264	-	.309	-	.092	-	.138	-	.070	-	.208
	70.00	.196	-	-	-	-	-	-	-	-	-	-	-	.2017
75.00	.194	-	.294	-	.142	-	.076	-	.100	-	.021	-	.010	
80.00	.261	-	.274	-	.063	-	.050	-	.062	-	.011	-	.040	
85.00	.283	-	.232	-	.005	-	.020	-	.014	-	.041	-	.064	
90.00	.275	-	.136	-	.018	-	.012	-	.029	-	.074	-	.083	
95.00	.243	-	.042	-	.047	-	.025	-	.062	-	.100	-	.104	
LOWER SURFACE	1.25	.209	-	.086	-	.155	-	.188	-	.244	-	-	-	.256
	2.50	.151	-	.057	-	.110	-	.158	-	.205	-	-	-	.224
	5.00	.078	-	.053	-	.111	-	.101	-	.209	-	.171	-	.206
	7.50	.053	-	.072	-	.128	-	.149	-	.231	-	.186	-	.228
	10.00	.025	-	.083	-	.139	-	.168	-	.248	-	.181	-	.246
	15.00	.012	-	.116	-	.171	-	.216	-	.247	-	.184	-	.302
	20.00	.061	-	.131	-	.192	-	.249	-	.267	-	.199	-	.290
	25.00	.034	-	.152	-	.211	-	.263	-	.280	-	.207	-	.264
	30.00	.108	-	.177	-	.237	-	.276	-	.274	-	.221	-	.226
	35.00	.120	-	.202	-	.255	-	.304	-	.239	-	.221	-	.2170
	40.00	.130	-	.218	-	.285	-	.324	-	.212	-	.220	-	.145
	45.00	.163	-	.247	-	.307	-	.346	-	.209	-	.241	-	.107
	50.00	.198	-	.273	-	.333	-	.344	-	.195	-	.251	-	.102
	55.00	.215	-	.287	-	.335	-	.280	-	.184	-	.198	-	.088
	60.00	.227	-	.290	-	.336	-	.178	-	.160	-	.116	-	.066
	65.00	.251	-	.287	-	.331	-	.125	-	.121	-	.069	-	.036
	70.00	.247	-	-	-	-	-	-	-	-	-	-	-	.017
	75.00	.257	-	.297	-	.171	-	.074	-	.075	-	.015	-	.001
	80.00	.241	-	.272	-	.079	-	.045	-	.054	-	.011	-	.024
85.00	.288	-	.225	-	.030	-	.016	-	.017	-	.039	-	.031	
90.00	.288	-	.157	-	.006	-	.010	-	.027	-	.062	-	.074	
95.00	.304	-	.049	-	.048	-	.052	-	.060	-	.089	-	.094	
UPPER SURFACE	M = 0.94    α = 4.0°													
	1.00	.028	-	.244	-	.120	-	.365	-	.057	-	.127	-	.048
	1.25	.061	-	.223	-	.135	-	.354	-	.046	-	.176	-	.072
	2.50	.037	-	.226	-	.151	-	.370	-	.096	-	.1047	-	.1050
	5.00	.118	-	.336	-	.196	-	.380	-	.095	-	.091	-	.212
	7.50	.150	-	.312	-	.206	-	.488	-	.093	-	.083	-	.206
	10.00	.151	-	.310	-	.208	-	.403	-	.713	-	.868	-	.200
	15.00	.179	-	.293	-	.321	-	.432	-	.447	-	.767	-	.266
	20.00	.188	-	.287	-	.373	-	.439	-	.479	-	.528	-	.288
	25.00	.222	-	.293	-	.394	-	.456	-	.503	-	.514	-	.287
	30.00	.231	-	.302	-	.398	-	.464	-	.520	-	.553	-	.327
	35.00	.226	-	.319	-	.412	-	.478	-	.538	-	.568	-	.3105
	40.00	.244	-	.342	-	.427	-	.502	-	.556	-	.582	-	.321
	45.00	.262	-	.358	-	.453	-	.521	-	.575	-	.469	-	.3034
	50.00	.301	-	.385	-	.466	-	.539	-	.593	-	.155	-	.3057
	55.00	.271	-	.401	-	.472	-	.547	-	.570	-	.047	-	.3068
	60.00	.313	-	.404	-	.472	-	.487	-	.319	-	.009	-	.3057
	65.00	.357	-	.373	-	.472	-	.487	-	.160	-	.003	-	.3054
	70.00	.308	-	-	-	-	-	-	-	-	-	-	-	.3039
75.00	.309	-	.420	-	.432	-	.168	-	.043	-	.015	-	.3028	
80.00	.356	-	.406	-	.277	-	.094	-	.003	-	.035	-	.3005	
85.00	.393	-	.363	-	.148	-	.042	-	.030	-	.055	-	.3016	
90.00	.389	-	.249	-	.075	-	.001	-	.058	-	.077	-	.3028	
95.00	.336	-	.137	-	.083	-	.025	-	.078	-	.098	-	.3039	
LOWER SURFACE	1.25	.348	-	.339	-	.318	-	.272	-	.312	-	-	-	.3229
	2.50	.321	-	.269	-	.245	-	.208	-	.236	-	.278	-	.2247
	5.00	.264	-	.201	-	.167	-	.192	-	.149	-	.176	-	.2157
	7.50	.235	-	.153	-	.118	-	.135	-	.098	-	.126	-	.2076
	10.00	.207	-	.130	-	.087	-	.079	-	.058	-	.093	-	.2021
	15.00	.158	-	.071	-	.043	-	.014	-	.032	-	.049	-	.2082
	20.00	.103	-	.032	-	.004	-	.020	-	.014	-	.005	-	.2157
	25.00	.107	-	.000	-	.036	-	.050	-	.042	-	.029	-	.2238
	30.00	.046	-	.028	-	.074	-	.075	-	.064	-	.058	-	.2273
	35.00	.012	-	.058	-	.093	-	.102	-	.080	-	.092	-	.2271
	40.00	.001	-	.080	-	.120	-	.118	-	.092	-	.118	-	.2245
	45.00	.032	-	.112	-	.142	-	.134	-	.107	-	.153	-	.2192
	50.00	.071	-	.138	-	.159	-	.137	-	.111	-	.189	-	.2084
	55.00	.087	-	.143	-	.168	-	.134	-	.113	-	.208	-	.2050
	60.00	.104	-	.149	-	.161	-	.119	-	.103	-	.193	-	.2038
	65.00	.129	-	.156	-	.158	-	.104	-	.083	-	.134	-	.2027
	70.00	.124	-	-	-	-	-	-	-	-	-	-	-	.2017
	75.00	.131	-	.155	-	.121	-	.070	-	.055	-	.026	-	.2001
	80.00	.125	-	.138	-	.089	-	.043	-	.044	-	.006	-	.2012
85.00	.150	-	.132	-	.057	-	.017	-	.018	-	.031	-	.2029	
90.00	.154	-	.122	-	.035	-	.001	-	.008	-	.053	-	.2048	
95.00	.203	-	.086	-	.000	-	.037	-	.048	-	.084	-	.2067	

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:							
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
		$M = 0.94 \quad \alpha = 5.0^\circ$								
UPPER SURFACE		.00	.024	.017	.093	.204	.332	.410	.368	
		1.25	.035	.076	.186	.165	.193	.161	.269	
		2.50	.147	1.002	.146	.197	.211	.243	.261	
		5.00	.234	.678	.099	.130	.144	.141	.175	
		7.50	.266	.548	.011	.062	.090	.117	.152	
		10.00	.269	.492	.886	.016	.065	.083	.132	
		15.00	.281	.428	.464	.917	1.013	1.055	1.106	
		20.00	.274	.405	.431	.531	.976	1.021	1.077	
		25.00	.298	.394	.445	.482	.849	.990	.989	
		30.00	.307	.390	.464	.504	.608	.980	.821	
		35.00	.307	.398	.477	.527	.567	.948	.522	
		40.00	.317	.413	.495	.554	.584	.820	.426	
		45.00	.330	.424	.515	.575	.610	.649	.399	
		50.00	.372	.445	.530	.599	.645	.447	.349	
		55.00	.329	.465	.541	.624	.678	.263	.257	
		60.00	.374	.470	.543	.559	.669	.113	.169	
		65.00	.420	.439	.530	.602	.347	.000	.116	
		70.00	.368						.098	
		75.00	.361	.484	.519	.290	.102	.061	.076	
LOWER SURFACE		80.00	.408	.488	.374	.173	.042	.074	.068	
		85.00	.448	.437	.224	.100	.010	.085	.061	
		90.00	.437	.334	.142	.039	.050	.096	.047	
		95.00	.413	.182	.080	.004	.077	.108	.034	
		1.25	.397	.452	.425	.387	.409		.396	
		2.50	.398	.380	.345	.307	.334		.321	
		5.00	.356	.309	.265	.287	.250	.360	.226	
		7.50	.330	.253	.214	.222	.192	.262	.148	
		10.00	.296	.221	.180	.160	.153	.206	.092	
		15.00	.246	.154	.126	.104	.112	.162	.007	
		20.00	.186	.111	.078	.064	.061	.068	.089	
		25.00	.181	.074	.039	.031	.028	.025	.193	
		30.00	.121	.041	.005	.004	.000	.007	.246	
		35.00	.082	.011	.021	.029	.024	.043	.288	
		40.00	.068	.013	.077	.053	.048	.076	.286	
		45.00	.031	.045	.072	.076	.065	.113	.251	
		50.00	.000	.071	.091	.089	.070	.149	.258	
		55.00	.026	.082	.101	.096	.080	.172	.169	
		60.00	.043	.090	.106	.096	.079	.179	.088	
	65.00	.060	.095	.113	.084	.067	.159	.049		
	70.00	.065						.026		
	75.00	.078	.105	.111	.069	.046	.070	.005		
	80.00	.072	.099	.089	.044	.040	.015	.011		
	85.00	.100	.105	.071	.024	.020	.013	.022		
	90.00	.111	.112	.059	.031	.003	.046	.040		
	95.00	.150	.099	.034	.020	.037	.080	.056		
		$M = 0.94 \quad \alpha = 7.0^\circ$								
UPPER SURFACE		.00	.022	.202	.282	.033	.561	.675	.627	
		1.25	.117	1.073	1.275	1.253	1.286	1.259	.731	
		2.50	.242	1.067	1.219	1.282	1.296	1.317	.734	
		5.00	.343	1.023	1.207	1.228	1.241	1.228	.759	
		7.50	.375	.908	1.139	1.173	1.196	1.216	.742	
		10.00	.372	.843	1.099	1.131	1.173	1.186	.726	
		15.00	.379	.684	.921	1.092	1.130	1.152	.729	
		20.00	.360	.528	.646	1.020	1.101	1.104	.729	
		25.00	.376	.441	.554	.979	1.079	.985	.707	
		30.00	.379	.425	.533	.936	1.028	.993	.683	
		35.00	.369	.435	.537	.856	1.005	.915	.635	
		40.00	.373	.455	.548	.826	.978	.886	.590	
		45.00	.381	.469	.563	.823	.849	.852	.552	
		50.00	.423	.490	.584	.837	.854	.805	.523	
		55.00	.378	.507	.583	.856	.866	.882	.493	
		60.00	.427	.522	.590	.800	.863	.854	.460	
		65.00	.475	.486	.581	.649	.342	.493	.418	
		70.00	.426						.398	
		75.00	.414	.533	.542	.345	.130	.426	.378	
LOWER SURFACE		80.00	.465	.514	.414	.213	.077	.380	.360	
		85.00	.492	.492	.274	.125	.054	.328	.330	
		90.00	.493	.359	.190	.060	.041	.262	.312	
		95.00	.458	.200	.127	.019	.028	.211	.288	
		1.25	.430	.528	.490	.449	.453		.431	
		2.50	.460	.466	.424	.379	.394	.408	.375	
		5.00	.443	.395	.345	.345	.314	.319	.284	
		7.50	.424	.335	.297	.288	.256	.264	.206	
		10.00	.388	.301	.257	.229	.217	.219	.150	
		15.00	.335	.229	.205	.176	.168	.170	.043	
		20.00	.269	.185	.154	.133	.118	.114	.029	
		25.00	.259	.145	.114	.096	.078	.071	.126	
		30.00	.195	.109	.076	.060	.049	.034	.186	
		35.00	.151	.077	.046	.033	.020	.005	.229	
		40.00	.133	.053	.020	.005	.005	.041	.240	
		45.00	.096	.021	.009	.021	.030	.079	.246	
		50.00	.060	.010	.037	.044	.045	.120	.240	
		55.00	.031	.021	.045	.060	.058	.145	.203	
		60.00	.011	.034	.086	.064	.058	.161	.166	
	65.00	.000	.045	.066	.064	.054	.160	.133		
	70.00	.007						.117		
	75.00	.030	.058	.080	.062	.038	.120	.104		
	80.00	.019	.060	.072	.038	.038	.082	.080		
	85.00	.080	.085	.063	.020	.028	.074	.075		
	90.00	.063	.095	.063	.011	.019	.067	.083		
	95.00	.107	.098	.088	.018	.005	.076	.103		



TABLE I

BASIC WING

PERCENT CHORD		PRESSURE COEFFICIENT, P, AT:							
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
M = 0.94    α = 11.4°									
UPPER SURFACE	1.00	.011	-	.585	.648	.253	.671	.738	.564
	1.25	.264	1.242	1.277	1.156	.964	.699	.506	
	2.50	.405	1.228	1.208	1.155	.970	.705	.505	
	5.00	.549	1.261	1.182	1.142	.954	.680	.538	
	7.50	.579	1.222	1.089	1.142	.957	.686	.502	
	10.00	.577	1.174	1.038	1.145	.951	.677	.472	
	15.00	.584	1.079	.991	1.101	.959	.670	.464	
	20.00	.536	1.019	.941	1.059	.930	.638	.453	
	25.00	.527	.962	.904	1.027	.887	.604	.419	
	30.00	.516	.851	.871	.986	.866	.607	.420	
	35.00	.496	.760	.840	.933	.834	.593	.405	
	40.00	.494	.673	.813	.890	.791	.572	.383	
	45.00	.499	.584	.793	.847	.740	.553	.379	
	50.00	.530	.535	.781	.799	.702	.543	.370	
	55.00	.483	.564	.763	.757	.670	.522	.368	
	60.00	.530	.591	.765	.731	.644	.503	.389	
	65.00	.574	.580	.752	.699	.645	.503	.390	
	70.00	.525	-	-	-	.564	.460	.354	
	75.00	.530	.601	.610	.622	.540	.440	.360	
	80.00	.557	.591	.536	.592	.507	.426	.346	
	85.00	.582	.567	.460	.551	.475	.413	.341	
	90.00	.571	.404	.405	.505	.447	.397	-	
	95.00	.530	.234	.362	.471	-	-	-	
LOWER SURFACE	1.25	.408	.607	.540	.521	.492	.469	.445	
	2.50	.508	.574	.516	.479	.476	.396	.415	
	5.00	.566	.513	.458	.449	.417	.344	.334	
	7.50	.581	.461	.410	.397	.365	.295	.259	
	10.00	.547	.426	.374	.348	.326	.247	.205	
	15.00	.468	.356	.318	.289	.271	.187	.113	
	20.00	.411	.308	.265	.242	.219	.135	.059	
	25.00	.366	.228	.184	.197	.174	.088	.120	
	30.00	.318	.191	.149	.163	.137	.039	.166	
	35.00	.273	.162	.116	.127	.103	.004	.191	
	40.00	.250	.127	.088	.093	.065	.054	.209	
	45.00	.209	.094	.057	.062	.028	.105	.231	
	50.00	.173	.075	.038	.032	.000	.146	.241	
	55.00	.140	.055	.020	.009	.031	.181	.239	
	60.00	.111	.038	.003	.031	.053	.212	.257	
	65.00	.096	-	-	-	.072	-	.255	
	70.00	.079	.015	.034	.063	.106	.246	.278	
	75.00	.026	.008	.037	.077	.140	.270	.277	
	80.00	.048	.019	.041	.096	.164	.292	.277	
	85.00	.024	.058	.066	.137	.208	.311	.277	
	90.00	.008	.090	.098	.179	.254	.315	.286	
	95.00	.001	-	-	-	-	-	-	
	M = 0.94    α = 15.7°								
UPPER SURFACE	1.00	.018	.953	1.047	.776	.759	.600	.528	
	1.25	.418	1.383	1.113	.861	.758	.594	.512	
	2.50	.624	1.361	1.055	.860	.758	.596	.509	
	5.00	.806	1.375	1.105	.856	.745	.583	.513	
	7.50	.833	1.385	1.080	.862	.741	.591	.510	
	10.00	.829	1.369	1.081	.878	.735	.583	.503	
	15.00	.820	1.311	1.077	.864	.734	.579	.504	
	20.00	.756	1.302	1.041	.851	.720	.571	.499	
	25.00	.714	1.282	1.010	.826	.703	.551	.493	
	30.00	.676	1.262	.978	.828	.703	.556	.497	
	35.00	.643	1.230	.958	.808	.696	.545	.491	
	40.00	.631	1.190	.943	.792	.681	.539	.488	
	45.00	.628	.721	.943	.780	.674	.541	.485	
	50.00	.653	.583	.930	.771	.660	.533	.480	
	55.00	.601	.599	.909	.760	.654	.526	.478	
	60.00	.614	.640	.888	.757	.654	.537	.488	
	65.00	.607	.640	.920	.756	.667	.537	.488	
	70.00	.540	-	-	-	.630	.512	.463	
	75.00	.577	.679	.832	.715	.618	.503	.454	
	80.00	.574	.644	.808	.706	.618	.496	.458	
	85.00	.610	.555	.773	.692	.605	.494	.448	
	90.00	.603	.397	.750	.669	.593	.485	.438	
	95.00	.505	.339	.735	.655	.580	-	-	
LOWER SURFACE	1.25	.358	.642	.542	.567	.477	.496	.422	
	2.50	.502	.663	.581	.548	.473	.454	.434	
	5.00	.663	.632	.555	.527	.485	.411	.381	
	7.50	.731	.586	.521	.487	.447	.361	.267	
	10.00	.695	.555	.489	.446	.410	.319	.181	
	15.00	.629	.486	.440	.392	.359	.260	.081	
	20.00	.546	.438	.392	.346	.308	.208	.005	
	25.00	.511	.394	.339	.299	.259	.156	.071	
	30.00	.448	.353	.298	.263	.214	.104	.128	
	35.00	.397	.315	.263	.220	.174	.057	.176	
	40.00	.370	.280	.244	.180	.134	.005	.204	
	45.00	.326	.207	.191	.144	.092	.052	.240	
	50.00	.287	.243	.157	.106	.055	.101	.266	
	55.00	.252	.207	.138	.074	.016	.143	.282	
	60.00	.219	.160	.107	.043	.015	.182	.307	
	65.00	.206	.134	.074	.017	.040	-	.326	
	70.00	.176	-	-	.018	.094	.243	.333	
	75.00	.110	.094	.006	.073	.141	.282	.363	
	80.00	.122	.080	.034	.104	.173	.309	.390	
	85.00	.090	.037	.091	.158	.241	.351	.399	
	90.00	.048	.010	.153	.222	.286	.393	.407	
	95.00	.031	.070	-	-	-	-	-	

TABLE 1

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:							
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
		M = 0.94    α = 20.0°								
UPPER SURFACE		.00	-.062	-1.170	-.984	-.899	-.821	-.638	-.573	
		1.25	-.507	-1.251	-.965	-.791	-.818	-.632	-.566	
		2.50	-.773	-1.237	-.931	-.790	-.808	-.641	-.563	
		5.00	-1.031	-1.232	-.965	-.795	-.742	-.625	-.570	
		7.50	-1.059	-1.218	-.953	-.800	-.725	-.636	-.564	
		10.00	-1.054	-1.200	-.960	-.820	-.718	-.638	-.558	
		15.00	-1.027	-1.154	-.957	-.809	-.718	-.631	-.555	
		20.00	-.904	-1.140	-.941	-.811	-.715	-.620	-.556	
		25.00	-.800	-1.116	-.926	-.805	-.707	-.602	-.555	
		30.00	-.734	-1.100	-.916	-.794	-.705	-.612	-.561	
		35.00	-.693	-1.078	-.905	-.779	-.700	-.610	-.566	
		40.00	-.688	-1.055	-.897	-.770	-.693	-.605	-.567	
		45.00	-.693	-1.027	-.889	-.762	-.689	-.601	-.566	
		50.00	-.718	-.997	-.884	-.758	-.682	-.603	-.564	
		55.00	-.677	-.958	-.870	-.753	-.673	-.598	-.561	
		60.00	-.704	-.932	-.858	-.749	-.670	-.596	-.558	
		65.00	-.723	-.892	-.864	-.749	-.675	-.600	-.556	
		70.00	-.673						-.535	
		75.00	-.715	-.836	-.822	-.730	-.648	-.584	-.533	
LOWER SURFACE		80.00	-.689	-.811	-.812	-.720	-.645	-.578	-.519	
		85.00	-.686	-.760	-.793	-.715	-.638	-.572	-.512	
		90.00	-.666	-.720	-.785	-.702	-.629	-.567	-.499	
		95.00	-.559	-.683	-.779	-.693	-.620	-.558	-.483	
		1.25	-.253	-.633	-.512	-.564	-.448	-.390		
		2.50	-.484	-.712	-.615	-.579	-.535	-.516	-.452	
		5.00	-.735	-.716	-.684	-.581	-.544	-.504	-.434	
		7.50	-.836	-.688	-.607	-.556	-.523	-.479	-.384	
		10.00	-.807	-.658	-.583	-.529	-.497	-.430	-.344	
		15.00	-.750	-.604	-.539	-.486	-.452	-.403	-.328	
		20.00	-.674	-.560	-.489	-.444	-.399	-.348	-.289	
		25.00	-.634	-.512	-.446	-.396	-.357	-.299	-.253	
		30.00	-.576	-.473	-.405	-.363	-.313	-.247	-.202	
		35.00	-.526	-.430	-.370	-.321	-.271	-.195	-.158	
		40.00	-.494	-.398	-.331	-.275	-.229	-.146	-.122	
		45.00	-.452	-.360	-.294	-.237	-.186	-.095	-.132	
		50.00	-.411	-.321	-.258	-.199	-.148	-.041	-.171	
		55.00	-.374	-.293	-.226	-.163	-.107	-.010	-.203	
		60.00	-.342	-.263	-.197	-.129	-.073	-.054	-.223	
	65.00	-.325	-.240	-.160	-.094	-.045	-.098	-.254		
	70.00	-.284						-.282		
	75.00	-.224	-.184	-.081	-.023	-.022	-.165	-.301		
	80.00	-.214	-.163	-.080	-.007	-.070	-.217	-.328		
	85.00	-.176	-.102	-.011	-.046	-.106	-.257	-.364		
	90.00	-.121	-.052	-.057	-.108	-.167	-.297	-.392		
	95.00	-.084	-.039	-.125	-.172	-.237	-.352	-.421		
		M = 0.94    α = 24.2°								
UPPER SURFACE		.00	-.200	-.998	-.955	-.899	-.789	-.717	-.647	
		1.25	-.456	-.947	-.893	-.863	-.756	-.695	-.606	
		2.50	-.682	-.941	-.867	-.871	-.751	-.704	-.600	
		5.00	-.962	-.947	-.868	-.896	-.752	-.694	-.567	
		7.50	-.940	-.943	-.874	-.898	-.748	-.719	-.579	
		10.00	-.942	-.950	-.887	-.825	-.749	-.738	-.597	
		15.00	-.940	-.937	-.889	-.788	-.736	-.702	-.588	
		20.00	-.949	-.950	-.895	-.783	-.741	-.674	-.588	
		25.00	-.946	-.958	-.892	-.808	-.748	-.660	-.604	
		30.00	-.910	-.940	-.883	-.793	-.741	-.660	-.597	
		35.00	-.877	-.940	-.879	-.793	-.735	-.659	-.596	
		40.00	-.834	-.936	-.868	-.791	-.732	-.660	-.602	
		45.00	-.815	-.931	-.857	-.788	-.727	-.661	-.601	
		50.00	-.824	-.917	-.845	-.776	-.721	-.649	-.601	
		55.00	-.776	-.907	-.837	-.776	-.723	-.654	-.603	
		60.00	-.752	-.904	-.841	-.764	-.719	-.656	-.602	
		65.00	-.728	-.849	-.796	-.739	-.683	-.614	-.587	
		70.00	-.741						-.601	
		75.00	-.803	-.864	-.822	-.755	-.700	-.634	-.574	
LOWER SURFACE		80.00	-.762	-.853	-.821	-.752	-.705	-.629	-.567	
		85.00	-.748	-.829	-.810	-.745	-.696	-.618	-.555	
		90.00	-.720	-.816	-.792	-.736	-.687	-.609	-.545	
		95.00	-.657	-.802	-.782	-.729	-.677	-.576	-.509	
		1.25	-.154	-.601	-.460	-.500	-.384	-.330		
		2.50	-.408	-.734	-.617	-.585	-.526	-.507	-.440	
		5.00	-.735	-.773	-.667	-.610	-.570	-.532	-.454	
		7.50	-.864	-.761	-.664	-.607	-.567	-.524	-.424	
		10.00	-.872	-.742	-.648	-.592	-.550	-.493	-.394	
		15.00	-.832	-.691	-.616	-.559	-.513	-.464	-.340	
		20.00	-.769	-.650	-.570	-.521	-.470	-.416	-.281	
		25.00	-.725	-.609	-.529	-.481	-.425	-.368	-.263	
		30.00	-.675	-.569	-.493	-.447	-.387	-.321	-.206	
		35.00	-.625	-.528	-.455	-.404	-.348	-.271	-.154	
		40.00	-.591	-.496	-.418	-.363	-.307	-.224	-.100	
		45.00	-.548	-.454	-.379	-.323	-.262	-.174	-.058	
		50.00	-.512	-.418	-.340	-.281	-.224	-.128	-.008	
		55.00	-.472	-.384	-.304	-.241	-.182	-.071	-.143	
		60.00	-.437	-.353	-.274	-.206	-.146	-.027	-.166	
	65.00	-.484	-.328	-.236	-.178	-.122	-.003	-.176		
	70.00	-.365						-.200		
	75.00	-.314	-.258	-.146	-.090	-.044	-.070	-.252		
	80.00	-.283	-.228	-.107	-.055	-.010	-.161	-.239		
	85.00	-.256	-.189	-.089	-.016	-.051	-.198	-.286		
	90.00	-.172	-.100	-.008	-.053	-.120	-.206	-.332		
	95.00	-.124	-.009	-.082	-.126	-.189	-.285	-.362		

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:							
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
		M = 0.98    α = 0.0°								
UPPER SURFACE		.00	.036	.526	.442	.707	.375	.383	.377	
		1.25	.229	.146	.201	.204	.202	.220	.266	
		2.50	.159	.103	.181	.200	.238	.320	.266	
		5.00	.082	.074	.129	.175	.188	.223	.234	
		7.50	.045	.082	.132	.158	.219	.244	.266	
		10.00	.027	.094	.181	.159	.239	.267	.301	
		15.00	.010	.104	.166	.212	.247	.303	.316	
		20.00	.037	.126	.186	.231	.278	.318	.406	
		25.00	.071	.145	.214	.263	.311	.341	.424	
		30.00	.089	.159	.236	.283	.326	.367	.436	
		35.00	.092	.184	.254	.303	.347	.390	.446	
		40.00	.111	.211	.276	.328	.369	.419	.462	
		45.00	.140	.226	.302	.342	.391	.440	.482	
		50.00	.180	.254	.314	.361	.428	.467	.494	
		55.00	.158	.276	.320	.390	.453	.516	.465	
		60.00	.197	.275	.335	.344	.450	.493	.172	
		65.00	.238	.254	.334	.376	.389	.543	.048	
		70.00	.195						.042	
	LOWER SURFACE		75.00	.191	.299	.346	.300	.231	.146	.083
		80.00	.255	.287	.294	.208	.171	.026	.108	
		85.00	.280	.276	.189	.150	.123	.045	.130	
		90.00	.282	.240	.137	.103	.079	.094	.143	
		95.00	.264	.155	.083	.056	.048	.131	.159	
		1.25	.262	.038	.022	.072	.114		.180	
		2.50	.212	.042	.003	.052	.102		.177	
		5.00	.145	.021	.029	.020	.135	.105	.163	
		7.50	.115	.004	.054	.071	.170	.191	.244	
		10.00	.091	.021	.073	.103	.191	.214	.253	
		15.00	.049	.058	.106	.155	.204	.232	.321	
		20.00	.002	.071	.133	.184	.231	.268	.361	
		25.00	.023	.094	.153	.205	.258	.287	.404	
		30.00	.052	.124	.186	.230	.287	.322	.425	
		35.00	.067	.150	.208	.259	.306	.353	.437	
		40.00	.079	.169	.237	.281	.331	.378	.448	
		45.00	.109	.196	.263	.309	.368	.400	.455	
		50.00	.155	.228	.287	.336	.389	.424	.455	
		55.00	.166	.237	.290	.347	.406	.449	.441	
	60.00	.182	.246	.296	.349	.394	.431	.230		
	65.00	.212	.253	.310	.353	.351	.342	.047		
	70.00	.193						.040		
	75.00	.215	.260	.306	.254	.187	.182	.072		
	80.00	.201	.245	.260	.180	.153	.046	.089		
	85.00	.248	.237	.186	.133	.122	.036	.105		
	90.00	.255	.227	.136	.097	.101	.069	.131		
	95.00	.301	.154	.071	.051	.059	.113	.147		
		M = 0.98    α = 3.9°								
UPPER SURFACE		.00	.041	.305	.191	.423	.042	.027	.105	
		1.25	.107	.750	.848	.809	.823	.867	.917	
		2.50	.011	.638	.782	.856	.863	.901	.902	
		5.00	.068	.277	.528	.751	.789	.809	.783	
		7.50	.105	.266	.380	.457	.784	.778	.779	
		10.00	.108	.260	.389	.349	.819	.746	.773	
		15.00	.136	.253	.381	.374	.400	.646	.745	
		20.00	.148	.252	.319	.379	.439	.474	.683	
		25.00	.178	.254	.310	.398	.439	.472	.487	
		30.00	.194	.281	.335	.409	.473	.511	.487	
		35.00	.180	.281	.362	.421	.485	.529	.483	
		40.00	.205	.300	.379	.442	.507	.553	.510	
		45.00	.226	.312	.402	.465	.524	.576	.544	
		50.00	.244	.338	.424	.486	.551	.599	.567	
		55.00	.238	.350	.432	.510	.560	.645	.574	
		60.00	.274	.365	.429	.439	.593	.665	.506	
		65.00	.318	.335	.420	.483	.562	.559	.308	
		70.00	.271						.122	
	LOWER SURFACE		75.00	.268	.383	.442	.431	.317	.172	.052
		80.00	.318	.368	.372	.263	.228	.105	.004	
		85.00	.354	.357	.237	.183	.168	.055	.052	
		90.00	.353	.282	.158	.118	.121	.004	.075	
		95.00	.321	.166	.099	.062	.083	.046	.089	
		1.25	.368	.336	.332	.284	.290	.222	.278	
		2.50	.348	.288	.259	.231	.215	.121	.198	
		5.00	.292	.220	.184	.204	.131	.068	.118	
		7.50	.261	.176	.142	.143	.076	.030	.041	
		10.00	.234	.152	.107	.098	.039	.015	.006	
		15.00	.184	.087	.058	.021	.007	.015	.096	
		20.00	.130	.058	.015	.015	.046	.060	.148	
		25.00	.135	.024	.023	.048	.082	.092	.260	
		30.00	.069	.006	.037	.071	.111	.110	.306	
		35.00	.039	.035	.079	.108	.140	.135	.342	
		40.00	.026	.057	.111	.131	.167	.158	.347	
		45.00	.010	.096	.135	.161	.196	.192	.355	
		50.00	.044	.124	.160	.181	.199	.229	.373	
		55.00	.065	.132	.166	.195	.193	.257	.377	
	60.00	.081	.144	.170	.208	.178	.283	.364		
	65.00	.109	.152	.182	.195	.185	.292	.304		
	70.00	.109						.805		
	75.00	.123	.158	.190	.145	.118	.273	.123		
	80.00	.119	.148	.156	.114	.120	.207	.025		
	85.00	.144	.157	.122	.093	.113	.131	.043		
	90.00	.149	.161	.100	.073	.110	.053	.079		
	95.00	.210	.126	.062	.046	.096	.013	.099		

TABLE 1

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.98    α = 5.9°								
	1.00	.038	.102	.006	.311	.206	.238	.162	
	1.25	.017	.024	.014	.101	.032	.032	.086	
	2.50	.087	.024	.014	.053	.058	.082	.079	
	5.00	.175	.088	.057	.091	.000	.087	.084	
	7.50	.210	.166	.080	.019	.056	.072	.073	
	10.00	.219	.166	.080	.019	.056	.072	.073	
	15.00	.235	.166	.080	.019	.056	.072	.073	
	20.00	.228	.166	.080	.019	.056	.072	.073	
	25.00	.254	.166	.080	.019	.056	.072	.073	
	30.00	.264	.166	.080	.019	.056	.072	.073	
	35.00	.262	.166	.080	.019	.056	.072	.073	
	40.00	.272	.166	.080	.019	.056	.072	.073	
	45.00	.290	.166	.080	.019	.056	.072	.073	
	50.00	.331	.166	.080	.019	.056	.072	.073	
	55.00	.290	.166	.080	.019	.056	.072	.073	
	60.00	.335	.166	.080	.019	.056	.072	.073	
	65.00	.378	.166	.080	.019	.056	.072	.073	
70.00	.331	.166	.080	.019	.056	.072	.073		
75.00	.323	.166	.443	.503	.414	.247	.302		
80.00	.372	.166	.432	.427	.325	.281	.242		
85.00	.406	.166	.416	.278	.224	.216	.148		
90.00	.407	.166	.331	.185	.157	.161	.089		
95.00	.386	.166	.190	.125	.104	.123	.045		
LOWER SURFACE	1.25	.413	.460	.429	.379	.387	.378	.378	
	2.50	.416	.388	.352	.309	.312	.327	.290	
	5.00	.375	.320	.272	.282	.226	.227	.212	
	7.50	.347	.267	.233	.225	.170	.174	.131	
	10.00	.317	.234	.189	.162	.129	.133	.081	
	15.00	.264	.168	.136	.097	.087	.087	.016	
	20.00	.206	.126	.085	.056	.032	.037	.094	
	25.00	.199	.088	.046	.022	.006	.003	.203	
	30.00	.139	.056	.012	.007	.037	.036	.260	
	35.00	.099	.024	.017	.040	.061	.076	.304	
	40.00	.086	.003	.045	.070	.087	.103	.328	
	45.00	.049	.041	.069	.096	.110	.141	.349	
	50.00	.014	.066	.093	.122	.119	.184	.369	
	55.00	.012	.076	.105	.138	.136	.219	.381	
	60.00	.030	.087	.112	.140	.140	.252	.375	
	65.00	.052	.094	.121	.140	.126	.267	.357	
	70.00	.053	.103	.140	.113	.115	.273	.324	
	75.00	.071	.100	.120	.099	.118	.210	.282	
80.00	.066	.112	.100	.086	.119	.186	.175		
85.00	.095	.125	.088	.083	.111	.130	.112		
90.00	.101	.115	.070	.068	.116	.063	.048		
95.00	.151	.106	.181	.133	.429	.488	.440		
UPPER SURFACE	1.00	.030	.106	.161	.133	.429	.488	.440	
	1.25	.061	.1030	.148	.111	.139	.116	.180	
	2.50	.164	.1023	.105	.149	.160	.176	.171	
	5.00	.285	.0910	.093	.094	.108	.108	.084	
	7.50	.318	.0749	.028	.042	.066	.082	.079	
	10.00	.320	.0674	.001	.006	.044	.052	.069	
	15.00	.330	.0557	.905	.974	.1005	.1033	.1042	
	20.00	.315	.475	.634	.917	.984	.1007	.1023	
	25.00	.334	.428	.495	.902	.973	.975	.975	
	30.00	.335	.409	.468	.717	.927	.984	.930	
	35.00	.329	.410	.477	.584	.906	.972	.915	
	40.00	.336	.423	.491	.555	.894	.961	.905	
	45.00	.346	.437	.511	.557	.823	.949	.893	
	50.00	.367	.457	.531	.574	.714	.936	.839	
	55.00	.343	.470	.544	.605	.680	.951	.630	
	60.00	.368	.484	.549	.547	.674	.764	.659	
	65.00	.434	.453	.541	.606	.666	.609	.663	
	70.00	.386	.496	.548	.558	.435	.584	.662	
75.00	.373	.481	.465	.371	.347	.572	.613		
80.00	.429	.466	.309	.260	.290	.486	.541		
85.00	.456	.374	.213	.191	.238	.293	.500		
90.00	.434	.213	.154	.121	.190	.034	.462		
LOWER SURFACE	1.25	.445	.539	.488	.456	.446	.387	.415	
	2.50	.476	.472	.423	.379	.382	.296	.350	
	5.00	.455	.396	.346	.336	.300	.243	.261	
	7.50	.436	.342	.298	.284	.246	.193	.185	
	10.00	.403	.308	.260	.232	.203	.149	.132	
	15.00	.346	.240	.208	.173	.156	.102	.037	
	20.00	.281	.194	.153	.131	.102	.094	.046	
	25.00	.272	.155	.116	.089	.063	.052	.159	
	30.00	.204	.120	.079	.059	.031	.012	.225	
	35.00	.163	.086	.049	.024	.022	.029	.273	
	40.00	.145	.058	.014	.010	.028	.063	.303	
	45.00	.105	.025	.020	.035	.060	.106	.333	
	50.00	.069	.004	.035	.064	.080	.147	.356	
	55.00	.042	.018	.049	.076	.099	.191	.372	
	60.00	.019	.033	.060	.080	.104	.224	.376	
	65.00	.004	.044	.079	.090	.096	.245	.366	
	70.00	.001	.056	.100	.099	.100	.267	.333	
	75.00	.019	.058	.085	.090	.115	.211	.286	
80.00	.046	.083	.070	.082	.117	.184	.174		
85.00	.054	.103	.083	.082	.125	.137	.150		
90.00	.098	.106	.082	.074	.135	.041	.135		
95.00	.098	.106	.082	.074	.135	.041	.171		

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:							
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
		M = 0.98    α = 11.5°								
UPPER SURFACE		.00	.006	-.465	-.511	-.121	-.758	-.861	-.794	
	1	.25	.180	-.125	-.176	-.1284	-.1310	-.1080	-.1017	
	2	.50	.313	-.112	-.139	-.1291	-.1313	-.1086	-.1027	
	5	.00	.456	-.143	-.152	-.1254	-.1281	-.1045	-.0992	
	7	.50	.489	-.105	-.1083	-.1218	-.1252	-.1067	-.0910	
	10	.00	.493	-.052	-.087	-.1198	-.1230	-.1048	-.0837	
	15	.00	.499	-.062	-.081	-.1137	-.1190	-.1030	-.0836	
	20	.00	.460	-.007	-.061	-.1076	-.1147	-.0990	-.0837	
	25	.00	.454	-.049	-.017	-.1052	-.1118	-.0938	-.0819	
	30	.00	.446	-.075	-.070	-.0998	-.1093	-.0933	-.0804	
	35	.00	.426	-.001	-.069	-.0922	-.1067	-.0894	-.0772	
	40	.00	.424	-.060	-.055	-.0881	-.1035	-.0844	-.0736	
	45	.00	.430	-.041	-.044	-.0856	-.0954	-.0798	-.0702	
	50	.00	.462	-.074	-.037	-.0834	-.0864	-.0751	-.0673	
	55	.00	.421	-.001	-.019	-.0807	-.0839	-.0707	-.0640	
	60	.00	.464	-.025	-.019	-.0755	-.0828	-.0665	-.0610	
	65	.00	.504	-.020	-.016	-.0686	-.0812	-.0653	-.0602	
LOWER SURFACE	70	.00	.464	-.043	-.060	-.0531	-.0781	-.0620	-.0577	
	75	.00	.459	-.040	-.059	-.0459	-.0773	-.0610	-.0527	
	80	.00	.498	-.033	-.048	-.0385	-.0737	-.0594	-.0522	
	85	.00	.517	-.050	-.040	-.0320	-.0683	-.0581	-.0510	
	90	.00	.516	-.055	-.038	-.0276	-.0611	-.0556	-.0501	
	95	.00	.496	-.055	-.038	-.0276	-.0611	-.0556	-.0501	
	1	.25	.439	.640	.563	.558	.503	-.481	.460	
	2	.50	.545	.602	.536	.495	.478	.408	.433	
	5	.00	.598	.541	.471	.465	.417	.356	.356	
	7	.50	.611	.467	.427	.408	.364	.305	.281	
	10	.00	.578	.454	.391	.352	.325	.259	.231	
	15	.00	.515	.383	.337	.299	.273	.203	.145	
	20	.00	.440	.336	.282	.253	.219	.157	.002	
	25	.00	.415	.293	.241	.209	.175	.110	.046	
	30	.00	.351	.255	.203	.179	.140	.065	.176	
	35	.00	.302	.220	.170	.140	.104	.022	.217	
	40	.00	.281	.188	.137	.104	.072	.023	.248	
45	.00	.239	.153	.109	.072	.033	-.073	.277		
50	.00	.206	.119	.079	.043	.005	-.117	.298		
55	.00	.169	.100	.062	.019	-.022	-.154	.300		
60	.00	.141	.081	.045	.008	-.043	-.181	.310		
65	.00	.131	.067	.021	.014	-.039	-.181	.312		
70	.00	.108	-.045	-.022	-.048	-.082	-.229	.316		
75	.00	.045	-.040	-.027	-.060	-.108	-.259	.325		
80	.00	.072	-.001	-.030	-.081	-.123	-.288	.334		
85	.00	.045	-.033	-.051	-.108	-.158	-.307	.364		
90	.00	.025	-.080	-.078	-.134	-.190	-.344	.392		
95	.00	.021	-.080	-.078	-.134	-.190	-.344	.392		
		M = 0.98    α = 15.9°								
UPPER SURFACE		.00	.157	-.839	-.933	-.736	-1.040	-.665	-.503	
	1	.25	.325	-.1263	-.1193	-.1152	-.937	-.660	-.481	
	2	.50	.532	-.1241	-.1127	-.1128	-.938	-.662	-.482	
	5	.00	.704	-.1287	-.1171	-.1111	-.933	-.641	-.462	
	7	.50	.741	-.1263	-.1150	-.1114	-.933	-.647	-.497	
	10	.00	.737	-.1247	-.1168	-.1118	-.930	-.642	-.509	
	15	.00	.729	-.1189	-.1176	-.1098	-.925	-.632	-.528	
	20	.00	.673	-.1181	-.1177	-.1083	-.911	-.625	-.547	
	25	.00	.631	-.1167	-.1173	-.1089	-.892	-.608	-.563	
	30	.00	.597	-.1158	-.1170	-.1078	-.878	-.622	-.578	
	35	.00	.565	-.1145	-.1164	-.1059	-.858	-.619	-.587	
	40	.00	.556	-.1129	-.1154	-.1035	-.834	-.615	-.589	
	45	.00	.556	-.1079	-.1144	-.1009	-.811	-.610	-.592	
	50	.00	.581	-.096	-.1135	-.0980	-.791	-.608	-.593	
	55	.00	.546	-.077	-.1117	-.0954	-.770	-.605	-.588	
	60	.00	.580	-.059	-.1124	-.0930	-.751	-.604	-.580	
	65	.00	.613	-.056	-.1118	-.0896	-.739	-.611	-.584	
LOWER SURFACE	70	.00	.582	-.040	-.1058	-.0825	-.696	-.611	-.570	
	75	.00	.606	-.038	-.0982	-.0810	-.684	-.610	-.562	
	80	.00	.623	-.030	-.0862	-.0787	-.670	-.607	-.558	
	85	.00	.634	-.029	-.0780	-.0756	-.655	-.604	-.548	
	90	.00	.629	-.031	-.0564	-.0727	-.641	-.597	-.540	
	95	.00	.562	-.031	-.0564	-.0727	-.641	-.597	-.540	
	1	.25	.378	.678	.574	.589	.502	.529	.453	
	2	.50	.539	.694	.604	.565	.537	.488	.473	
	5	.00	.702	.660	.578	.550	.513	.448	.428	
	7	.50	.764	.617	.546	.509	.475	.436	.381	
	10	.00	.729	.583	.513	.470	.441	.402	.353	
	15	.00	.658	.518	.462	.421	.395	.362	.315	
	20	.00	.580	.471	.410	.374	.342	.307	.261	
	25	.00	.546	.427	.366	.333	.300	.255	.018	
	30	.00	.483	.385	.328	.296	.261	.208	-.071	
	35	.00	.433	.346	.292	.255	.224	.162	-.113	
	40	.00	.401	.316	.267	.228	.190	.126	-.154	
45	.00	.362	.276	.224	.186	.147	.066	-.198		
50	.00	.325	.244	.192	.155	.117	.014	-.286		
55	.00	.288	.219	.167	.127	.084	-.034	-.346		
60	.00	.256	.196	.144	.106	.056	-.077	-.406		
65	.00	.247	.175	.112	.082	.030	-.113	-.468		
70	.00	.208	-.135	-.062	-.039	-.023	-.179	-.523		
75	.00	.146	-.119	-.049	-.018	-.066	-.293	-.573		
80	.00	.113	-.087	-.039	-.016	-.099	-.403	-.613		
85	.00	.063	-.021	-.020	-.011	-.107	-.502	-.643		
90	.00	.039	-.052	.007	.133	-.212	-.641	-.678		

TABLE I

## BASIC WING

		PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.98 $\alpha = 20.2^\circ$								
UPPER SURFACE	.00	.258	1.067	1.185	.931	.808	.727	.662
	1.25	.408	1.217	1.070	.850	.787	.710	.638
	2.50	.685	1.206	1.088	.851	.780	.714	.635
	5.00	.933	1.211	1.064	.856	.780	.694	.612
	7.50	.951	1.210	1.047	.853	.780	.708	.625
	10.00	.939	1.214	1.063	.843	.773	.706	.632
	15.00	.918	1.183	1.050	.856	.782	.692	.627
	20.00	.841	1.191	1.087	.867	.786	.684	.625
	25.00	.769	1.200	1.082	.856	.778	.687	.631
	30.00	.714	1.152	1.030	.854	.772	.680	.620
	35.00	.674	1.160	1.016	.847	.770	.675	.615
	40.00	.659	1.158	.992	.840	.764	.668	.613
	45.00	.654	1.123	.970	.829	.759	.668	.610
	50.00	.674	1.014	.952	.825	.757	.667	.602
	55.00	.645	.860	.931	.818	.750	.667	.582
	60.00	.664	.747	.930	.791	.725	.641	.553
	65.00	.684	.689	.885				.589
	70.00	.649		.892	.797	.728	.653	.583
	75.00	.673	.660	.886	.793	.727	.647	.568
LOWER SURFACE	80.00	.664	.583	.865	.781	.715	.639	.560
	85.00	.633	.544	.865	.769	.696	.624	.553
	90.00	.597	.460	.882	.761	.686	.610	
	95.00	.546	.385	.880				.410
	1.25	.279	.665	.542	.569	.464	.534	.474
	2.50	.517	.740	.641	.602	.553	.528	.459
	5.00	.768	.742	.650	.603	.567	.501	.417
	7.50	.868	.712	.631	.580	.543	.463	.376
	10.00	.836	.683	.608	.556	.517	.429	.305
	15.00	.778	.626	.564	.513	.476	.379	.208
	20.00	.705	.585	.516	.473	.437	.326	.134
	25.00	.685	.542	.473	.429	.383	.282	.060
	30.00	.608	.500	.435	.393	.343	.236	.006
	35.00	.528	.460	.398	.351	.305	.184	.056
	40.00	.425	.389	.361	.313	.264	.135	.095
	45.00	.484	.428	.329	.275	.222	.084	.134
	50.00	.445	.351	.291	.237	.184	.033	.169
	55.00	.408	.325	.262	.200	.147	.008	.198
	60.00	.376	.298	.235	.171	.111	.044	.210
	65.00	.344	.277	.200	.141	.089		.259
UPPER SURFACE	70.00	.315	.223	.131	.071	.024	.111	.270
	75.00	.283	.201	.100	.042	.021	.181	.273
	80.00	.237	.143	.064	.008	.062	.158	.320
	85.00	.199	.094	.008	.053	.120	.234	.353
	90.00	.140	.094	.008	.116	.180	.296	.389
	95.00	.094	.010	.061				
M = 1.00 $\alpha = 0.0^\circ$								
UPPER SURFACE	.00	.074	.582	.503	.747	.472	.473	.434
	1.25	.288	.006	.045	.074	.047	.063	.123
	2.50	.227	.015	.034	.082	.121	.180	.129
	5.00	.157	.011	.044	.097	.138	.187	.148
	7.50	.117	.005	.050	.096	.138	.161	.168
	10.00	.097	.021	.075	.103	.163	.186	.207
	15.00	.057	.036	.096	.144	.183	.226	.228
	20.00	.028	.057	.121	.164	.216	.239	.328
	25.00	.005	.079	.147	.195	.249	.263	.374
	30.00	.030	.100	.175	.222	.283	.298	.392
	35.00	.034	.127	.196	.245	.307	.326	.414
	40.00	.055	.152	.220	.267	.338	.360	.433
	45.00	.083	.168	.248	.288	.373	.384	.445
	50.00	.124	.197	.289	.305	.418	.418	.468
	55.00	.103	.224	.265	.339	.456	.456	.418
	60.00	.144	.222	.286	.326	.464	.464	.418
	65.00	.187	.205	.286	.326	.464	.464	.418
	70.00	.147	.187	.286	.326	.464	.464	.418
	75.00	.137	.147	.286	.326	.464	.464	.418
LOWER SURFACE	80.00	.200	.247	.286	.326	.464	.464	.418
	85.00	.232	.247	.286	.326	.464	.464	.418
	90.00	.234	.247	.286	.326	.464	.464	.418
	95.00	.220	.247	.286	.326	.464	.464	.418
	1.25	.263	.013	.079	.118	.180	.160	.245
	2.50	.211	.012	.045	.103	.144	.197	.213
	5.00	.140	.011	.020	.081	.129	.185	.202
	7.50	.116	.007	.069	.093	.155	.201	.225
	10.00	.094	.084	.083	.118	.164	.215	.240
	15.00	.053	.084	.114	.164	.215	.248	.278
	20.00	.001	.084	.138	.187	.234	.263	.294
	25.00	.088	.083	.155	.203	.257	.287	.324
	30.00	.044	.113	.179	.222	.267	.306	.352
	35.00	.088	.138	.224	.279	.329	.366	.403
	40.00	.065	.138	.253	.308	.357	.393	.433
	45.00	.097	.164	.281	.338	.387	.423	.468
	50.00	.136	.213	.288	.343	.408	.473	.488
	55.00	.151	.224	.290	.348	.404	.497	.470
	60.00	.169	.233	.298	.348	.404	.418	.477
	65.00	.197	.235					.480
	70.00	.190		.299	.292	.199	.227	.136
	75.00	.204	.246	.264	.287	.161	.149	.089
	80.00	.184	.233	.291	.288	.188	.182	.021
	85.00	.237	.214	.289	.284	.093	.086	.021
	90.00	.238	.138	.060	.038	.088	.039	.059

TABLE I

## BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 1.00    α = 3.9°									
UPPER SURFACE	1.00	.067	.333	.821	.456	.073	.053	.176	
	1.25	.131	.704	.804	.768	.773	.821	.857	
	2.50	.041	.681	.739	.813	.817	.854	.846	
	5.00	.038	.246	.510	.714	.746	.766	.735	
	7.50	.074	.239	.298	.441	.686	.735	.727	
	10.00	.078	.233	.301	.333	.596	.709	.783	
	15.00	.108	.226	.299	.358	.372	.621	.702	
	20.00	.118	.225	.296	.355	.406	.449	.644	
	25.00	.151	.230	.306	.378	.437	.450	.463	
	30.00	.167	.235	.320	.385	.452	.468	.430	
	35.00	.163	.281	.338	.398	.463	.506	.455	
	40.00	.179	.273	.326	.420	.463	.528	.479	
	45.00	.201	.289	.376	.441	.503	.553	.511	
	50.00	.239	.313	.396	.464	.538	.573	.536	
	55.00	.206	.333	.409	.490	.558	.616	.568	
	60.00	.249	.342	.409	.426	.576	.639	.571	
	65.00	.293	.312	.396	.460	.550	.609	.565	
	70.00	.250						.326	
	75.00	.242	.360	.426	.458	.364	.250	.182	
80.00	.290	.348	.368	.281	.242	.183	.133		
85.00	.330	.339	.238	.186	.179	.136	.087		
90.00	.329	.275	.154	.124	.132	.092	.049		
95.00	.299	.158	.092	.063	.100	.062	.016		
LOWER SURFACE	1.25	.385	.372	.340	.292	.295		.281	
	2.50	.368	.307	.271	.240	.219	.225	.203	
	5.00	.313	.242	.199	.136	.127	.127	.124	
	7.50	.281	.195	.153	.149	.083	.074	.051	
	10.00	.254	.169	.121	.108	.042	.040	.006	
	15.00	.207	.109	.077	.033	.011	.007	.078	
	20.00	.151	.079	.029	.003	.039	.056	.142	
	25.00	.156	.047	.009	.039	.078	.097	.236	
	30.00	.093	.016	.038	.066	.105	.127	.283	
	35.00	.059	.015	.063	.098	.134	.153	.324	
	40.00	.049	.038	.093	.124	.162	.164	.330	
	45.00	.013	.074	.119	.154	.195	.189	.346	
	50.00	.024	.105	.147	.173	.212	.221	.353	
	55.00	.043	.113	.157	.185	.212	.251	.359	
	60.00	.062	.126	.160	.200	.191	.275	.350	
	65.00	.089	.138	.169	.200	.174	.283	.333	
	70.00	.089						.305	
	75.00	.104	.141	.180	.151	.127	.275	.275	
	80.00	.100	.132	.182	.119	.119	.209	.197	
85.00	.130	.141	.119	.097	.107	.191	.143		
90.00	.138	.146	.099	.083	.105	.165	.108		
95.00	.193	.112	.059	.054	.098	.101	.036		
M = 1.00    α = 5.9°									
UPPER SURFACE	1.00	.044	.142	.030	.333	.154	.187	.2091	
	1.25	.083	.273	.076	.939	.950	.941	.12018	
	2.50	.051	.262	.046	.984	.984	.1008	.18011	
	5.00	.138	.245	.038	.927	.927	.919	.9920	
	7.50	.173	.2414	.009	.856	.883	.899	.909	
	10.00	.183	.2372	.755	.806	.860	.875	.900	
	15.00	.199	.225	.753	.765	.804	.856	.881	
	20.00	.221	.2110	.766	.493	.785	.826	.861	
	25.00	.230	.2109	.779	.401	.743	.804	.821	
	30.00	.230	.2117	.794	.423	.547	.803	.768	
	35.00	.240	.2134	.812	.443	.443	.783	.753	
	40.00	.256	.2149	.833	.471	.496	.726	.753	
	45.00	.276	.2189	.852	.491	.523	.625	.753	
	50.00	.280	.2187	.863	.512	.554	.590	.744	
	55.00	.280	.2187	.863	.512	.554	.608	.744	
	60.00	.280	.2187	.863	.512	.554	.635	.744	
	65.00	.280	.2187	.863	.512	.554	.662	.744	
	70.00	.280	.2187	.863	.512	.554	.688	.744	
	75.00	.280	.2187	.863	.512	.554	.714	.744	
LOWER SURFACE	1.00	.173	.173	.173	.173	.173	.173	.173	
	1.25	.173	.173	.173	.173	.173	.173	.173	
	2.50	.173	.173	.173	.173	.173	.173	.173	
	5.00	.173	.173	.173	.173	.173	.173	.173	
	7.50	.173	.173	.173	.173	.173	.173	.173	
	10.00	.173	.173	.173	.173	.173	.173	.173	
	15.00	.173	.173	.173	.173	.173	.173	.173	
	20.00	.173	.173	.173	.173	.173	.173	.173	
	25.00	.173	.173	.173	.173	.173	.173	.173	
	30.00	.173	.173	.173	.173	.173	.173	.173	
	35.00	.173	.173	.173	.173	.173	.173	.173	
	40.00	.173	.173	.173	.173	.173	.173	.173	
	45.00	.173	.173	.173	.173	.173	.173	.173	
	50.00	.173	.173	.173	.173	.173	.173	.173	
	55.00	.173	.173	.173	.173	.173	.173	.173	
	60.00	.173	.173	.173	.173	.173	.173	.173	
	65.00	.173	.173	.173	.173	.173	.173	.173	
	70.00	.173	.173	.173	.173	.173	.173	.173	
	75.00	.173	.173	.173	.173	.173	.173	.173	

TABLE I

## BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:								
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2		
		M = 1.00    α = 7.8°									
UPPER SURFACE		.00	-.001	-.061	-.136	-.168	-.370	-.431	-.374		
	1.25	-.086	1.002	1.076	1.042	1.066	1.061	1.104			
	2.50	-.143	.984	1.035	1.079	1.082	1.105	1.099			
	5.00	-.243	.858	1.085	1.031	1.035	1.021	1.015			
	7.50	-.276	.671	.962	.984	.996	1.010	1.002			
	10.00	-.280	.580	.937	.943	.978	.985	.995			
	15.00	-.290	.477	.836	.915	.939	.965	.979			
	20.00	-.278	.426	.607	.858	.918	.943	.963			
	25.00	-.296	.398	.463	.842	.911	.914	.917			
	30.00	-.298	.383	.434	.702	.865	.921	.874			
	35.00	-.293	.382	.437	.552	.837	.908	.867			
	40.00	-.300	.395	.457	.522	.827	.900	.865			
	45.00	-.319	.405	.475	.524	.780	.890	.868			
	50.00	-.354	.423	.499	.541	.685	.873	.872			
	55.00	-.315	.439	.506	.570	.643	.893	.848			
	60.00	-.356	.452	.517	.574	.635	.885	.870			
	65.00	-.398	.423	.505	.576	.627	.608	.879			
	LOWER SURFACE	70.00	-.358						.821		
75.00		-.335	-.461	-.520	-.565	-.463	-.544	.660			
80.00		-.403	-.449	-.460	-.391	-.341	-.546	.669			
85.00		-.422	-.439	-.395	-.260	-.285	-.509	.632			
90.00		-.419	-.360	-.205	-.186	-.238	-.393	.609			
95.00		-.404	-.201	-.140	-.134	-.203	-.220	.563			
1.25		.463	.552	.505	.463	.450		.435			
2.50		.494	.483	.441	.394	.388	.395	.371			
5.00		.471	.416	.361	.348	.306	.302	.288			
7.50		.447	.360	.311	.295	.251	.250	.212			
10.00		.418	.385	.277	.245	.212	.201	.160			
15.00		.367	.252	.220	.183	.162	.158	.064			
20.00		.301	.214	.167	.142	.121	.104	.005			
25.00		.291	.173	.132	.104	.072	.062	.121			
30.00		.266	.135	.089	.073	.038	.026	.190			
35.00		.182	.102	.062	.040	.008	.015	.243			
40.00		.163	.076	.031	.005	.019	.049	.271			
UPPER SURFACE		45.00	.125	.039	.008	.023	.046	.086	.297		
	50.00	.090	.012	.018	.054	.067	.128	.323			
	55.00	.061	.002	.030	.070	.086	.167	.341			
	60.00	.035	.017	.043	.078	.094	.202	.344			
	65.00	.020	.029	.089	.086	.092	.222	.344			
	70.00	.013						.341			
	75.00	.022	.037	.087	.084	.086	.249	.341			
	80.00	.002	.031	.082	.075	.097	.204	.281			
	85.00	.024	.003	.074	.071	.101	.207	.233			
	90.00	.036	.079	.073	.071	.114	.212	.190			
	95.00	.053	.089	.064	.065	.126	.109	.200			
			M = 1.00    α = 11.5°								
	UPPER SURFACE		.00	-.118	-.440	-.472	-.083	-.713	-.822	-.756	
		1.25	-.164	1.103	1.141	1.227	1.268	1.210	1.085		
		2.50	-.296	1.090	1.092	1.240	1.267	1.231	1.078		
		5.00	-.440	1.115	1.126	1.203	1.238	1.166	1.053		
		7.50	-.475	1.083	1.039	1.170	1.207	1.185	1.019		
		10.00	-.481	1.024	.977	1.141	1.184	1.157	.984		
15.00		-.488	.934	.903	1.090	1.156	1.125	.952			
20.00		-.450	.881	.839	1.031	1.106	1.080	.935			
25.00		-.443	.826	.802	.938	1.031	1.017	.904			
30.00		-.433	.735	.774	.853	1.093	1.016	.870			
35.00		-.416	.587	.755	.882	1.081	.965	.825			
40.00		-.415	.455	.751	.839	1.070	.895	.782			
45.00		-.419	.432	.751	.817	.993	.840	.751			
50.00		-.446	.463	.755	.800	.842	.807	.730			
55.00		-.413	.491	.786	.774	.789	.777	.709			
60.00		-.452	.514	.708	.729	.777	.754	.684			
65.00		-.494	.510	.703	.666	.775	.740	.677			
LOWER SURFACE		70.00	-.463						.645		
	75.00	-.438	.533	.661	.534	.777	.715	.619			
	80.00	-.502	.525	.585	.476	.780	.696	.600			
	85.00	-.508	.525	.584	.412	.754	.669	.592			
	90.00	-.507	.454	.402	.358	.709	.643	.572			
	95.00	-.493	.255	.348	.293	.629	.606	.561			
	1.25	.438	.644	.575	.570	.516		.474			
	2.50	.547	.608	.544	.508	.490	.488	.444			
	5.00	.604	.547	.482	.477	.426	.409	.365			
	7.50	.615	.492	.437	.422	.375	.360	.293			
	10.00	.579	.458	.401	.364	.338	.313	.245			
	15.00	.520	.389	.347	.311	.287	.267	.158			
	20.00	.443	.340	.293	.265	.235	.210	.068			
	25.00	.416	.297	.251	.226	.189	.168	.034			
	30.00	.382	.260	.212	.192	.154	.117	.108			
	35.00	.304	.224	.180	.154	.119	.078	.164			
	40.00	.279	.192	.148	.121	.087	.031	.207			
	45.00	.248	.156	.121	.087	.053	.014	.243			
50.00	.208	.123	.090	.058	.023	.064	.274				



TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:												
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2						
M = 1.00    α = 15.9°															
UPPER SURFACE	.00	-	.285	-	.788	-	.879	-	.696	-	1.003	-	.835	-	.403
	1.25	-	.286	-	1.207	-	1.138	-	1.127	-	.975	-	.784	-	.380
	2.50	-	.490	-	1.186	-	1.074	-	1.105	-	.973	-	.788	-	.382
	5.00	-	.664	-	1.199	-	1.114	-	1.088	-	.969	-	.754	-	.391
	7.50	-	.699	-	1.206	-	1.092	-	1.088	-	.960	-	.762	-	.414
	10.00	-	.697	-	1.192	-	1.115	-	1.088	-	.954	-	.753	-	.440
	15.00	-	.691	-	1.137	-	1.120	-	1.081	-	.943	-	.731	-	.475
	20.00	-	.634	-	1.129	-	1.122	-	1.072	-	.933	-	.721	-	.512
	25.00	-	.595	-	1.116	-	1.120	-	1.096	-	.920	-	.711	-	.545
	30.00	-	.564	-	1.105	-	1.114	-	1.094	-	.904	-	.713	-	.567
	35.00	-	.534	-	1.092	-	1.109	-	1.091	-	.888	-	.698	-	.579
	40.00	-	.522	-	1.030	-	1.099	-	1.088	-	.870	-	.679	-	.587
	45.00	-	.522	-	.732	-	1.091	-	1.077	-	.855	-	.659	-	.591
	50.00	-	.542	-	.567	-	1.081	-	1.038	-	.830	-	.645	-	.590
	55.00	-	.518	-	.545	-	1.067	-	.979	-	.810	-	.633	-	.593
60.00	-	.545	-	.562	-	1.079	-	.947	-	.794	-	.624	-	.586	
65.00	-	.581	-	.565	-	1.066	-	.911	-	.773	-	.618	-	.589	
70.00	-	.556	-	-	-	-	-	-	-	-	-	-	-	.575	
75.00	-	.556	-	.609	-	1.064	-	.852	-	.728	-	.617	-	.583	
80.00	-	.598	-	.607	-	1.017	-	.831	-	.712	-	.613	-	.569	
85.00	-	.600	-	.603	-	.941	-	.808	-	.688	-	.609	-	.567	
90.00	-	.600	-	.499	-	.835	-	.794	-	.671	-	.605	-	.559	
95.00	-	.547	-	.315	-	.626	-	.774	-	.653	-	.599	-	.550	
LOWER SURFACE	1.25	-	.391	-	.689	-	.588	-	.595	-	.519	-	.540	-	.482
	2.50	-	.558	-	.703	-	.621	-	.575	-	.548	-	.500	-	.494
	5.00	-	.718	-	.670	-	.590	-	.556	-	.522	-	.461	-	.444
	7.50	-	.784	-	.629	-	.557	-	.521	-	.484	-	.418	-	.385
	10.00	-	.745	-	.593	-	.525	-	.480	-	.449	-	.418	-	.341
	15.00	-	.677	-	.529	-	.476	-	.427	-	.403	-	.377	-	.258
	20.00	-	.597	-	.483	-	.423	-	.384	-	.351	-	.320	-	.153
	25.00	-	.563	-	.437	-	.381	-	.341	-	.307	-	.274	-	.083
	30.00	-	.500	-	.397	-	.342	-	.307	-	.269	-	.229	-	.013
	35.00	-	.449	-	.359	-	.305	-	.267	-	.232	-	.180	-	.043
	40.00	-	.421	-	.328	-	.268	-	.229	-	.197	-	.137	-	.092
	45.00	-	.379	-	.289	-	.238	-	.193	-	.157	-	.086	-	.132
	50.00	-	.344	-	.254	-	.206	-	.158	-	.128	-	.038	-	.173
	55.00	-	.305	-	.230	-	.180	-	.131	-	.095	-	.007	-	.200
	60.00	-	.274	-	.210	-	.158	-	.106	-	.069	-	.052	-	.222
65.00	-	.268	-	.190	-	.124	-	.086	-	.048	-	.087	-	.243	
70.00	-	.221	-	-	-	-	-	-	-	-	-	-	-	.285	
75.00	-	.165	-	.151	-	.068	-	.041	-	.002	-	.145	-	.290	
80.00	-	.157	-	.135	-	.048	-	.022	-	.041	-	.204	-	.309	
85.00	-	.124	-	.086	-	.033	-	.005	-	.076	-	.241	-	.339	
90.00	-	.067	-	.039	-	.000	-	.058	-	.123	-	.258	-	.367	
95.00	-	.041	-	.033	-	.025	-	.118	-	.182	-	.302	-	.404	
M = 1.03    α = 0.0°															
UPPER SURFACE	.00	-	.043	-	.578	-	.501	-	.746	-	.486	-	.505	-	.471
	1.25	-	.240	-	.007	-	.038	-	.048	-	.017	-	.015	-	.079
	2.50	-	.183	-	.002	-	.029	-	.066	-	.086	-	.133	-	.087
	5.00	-	.118	-	.004	-	.036	-	.080	-	.059	-	.079	-	.101
	7.50	-	.081	-	.018	-	.041	-	.078	-	.106	-	.115	-	.129
	10.00	-	.065	-	.032	-	.070	-	.090	-	.130	-	.139	-	.173
	15.00	-	.035	-	.043	-	.089	-	.130	-	.147	-	.185	-	.189
	20.00	-	.011	-	.065	-	.116	-	.147	-	.179	-	.202	-	.289
	25.00	-	.022	-	.083	-	.139	-	.178	-	.210	-	.224	-	.321
	30.00	-	.042	-	.099	-	.166	-	.199	-	.231	-	.252	-	.334
	35.00	-	.044	-	.124	-	.181	-	.221	-	.250	-	.274	-	.360
	40.00	-	.060	-	.149	-	.209	-	.253	-	.274	-	.299	-	.370
	45.00	-	.089	-	.167	-	.233	-	.274	-	.286	-	.328	-	.398
	50.00	-	.118	-	.194	-	.252	-	.290	-	.314	-	.361	-	.411
	55.00	-	.114	-	.219	-	.259	-	.307	-	.345	-	.411	-	.438
60.00	-	.140	-	.224	-	.267	-	.328	-	.350	-	.423	-	.408	
65.00	-	.179	-	.203	-	.263	-	.300	-	.310	-	.351	-	.271	
70.00	-	.154	-	-	-	-	-	-	-	-	-	-	-	.189	
75.00	-	.115	-	.240	-	.281	-	.287	-	.164	-	.196	-	.111	
80.00	-	.207	-	.230	-	.247	-	.167	-	.102	-	.140	-	.059	
85.00	-	.214	-	.227	-	.165	-	.100	-	.057	-	.084	-	.000	
90.00	-	.218	-	.206	-	.098	-	.046	-	.017	-	.031	-	.056	
95.00	-	.210	-	.128	-	.042	-	.024	-	.004	-	.015	-	.087	
LOWER SURFACE	1.25	-	.207	-	.048	-	.104	-	.131	-	.181	-	.132	-	.237
	2.50	-	.164	-	.017	-	.059	-	.106	-	.137	-	.163	-	.203
	5.00	-	.095	-	.011	-	.060	-	.052	-	.140	-	.163	-	.189
	7.50	-	.069	-	.028	-	.070	-	.091	-	.163	-	.177	-	.218
	10.00	-	.056	-	.037	-	.087	-	.106	-	.178	-	.195	-	.236
	15.00	-	.024	-	.069	-	.108	-	.157	-	.191	-	.205	-	.273
	20.00	-	.020	-	.077	-	.135	-	.178	-	.206	-	.238	-	.313
	25.00	-	.007	-	.094	-	.153	-	.195	-	.233	-	.254	-	.345
	30.00	-	.050	-	.114	-	.178	-	.213	-	.258	-	.282	-	.361
	35.00	-	.073	-	.141	-	.194	-	.243	-	.272	-	.309	-	.368
	40.00	-	.073	-	.157	-	.221	-	.268	-	.293	-	.331	-	.384
	45.00	-	.102	-	.185	-	.245	-	.298	-	.328	-	.364	-	.414
	50.00	-	.132	-	.213	-	.276	-	.328	-	.348	-	.383	-	.433
	55.00	-	.156	-	.224	-	.278	-	.329	-	.370	-	.432	-	.481
	60.00	-	.166	-	.233	-	.278	-	.331	-	.370	-	.460	-	.459
65.00	-	.188	-	.238	-	.285	-	.323	-	.344	-	.419	-	.306	
70.00	-	.183	-	-	-	-	-	-	-	-	-	-	-	.204	
75.00	-	.199	-	.242	-	.290	-	.302	-	.159	-	.181	-	.102	
80.00	-	.179	-	.230	-	.257	-	.173	-	.109	-	.128	-	.053	
85.00	-	.224	-	.225	-	.197	-	.096	-	.069	-	.083	-	.004	
90.00	-	.212	-	.211	-	.117	-	.048	-	.034	-	.040	-	.046	
95.00	-	.268	-	.189	-	.042	-	.004	-	.004	-	.003	-	.088	

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:					
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2
M = 1.03    α = 3.9°								
UPPER SURFACE	.00	.054	.358	.250	.497	.116	.105	.200
	1.25	.113	.681	.741	.698	.703	.752	.789
	2.50	.028	.602	.696	.750	.746	.778	.776
	5.00	.054	.226	.570	.681	.684	.695	.670
	7.50	.092	.232	.274	.529	.636	.668	.670
	10.00	.102	.226	.281	.337	.593	.646	.667
	15.00	.120	.218	.285	.318	.352	.606	.646
	20.00	.122	.216	.278	.322	.345	.443	.628
	30.00	.150	.222	.286	.342	.380	.383	.488
	35.00	.164	.226	.297	.352	.396	.422	.387
	40.00	.161	.238	.314	.368	.413	.447	.403
	45.00	.172	.261	.332	.383	.430	.469	.428
	50.00	.193	.273	.349	.403	.446	.493	.465
	55.00	.224	.296	.370	.424	.471	.516	.491
	60.00	.207	.315	.383	.447	.505	.555	.521
	65.00	.237	.328	.390	.396	.528	.578	.528
	70.00	.248	.303	.369	.432	.506	.551	.527
	75.00	.209	.334	.396	.423	.333	.221	.345
	80.00	.294	.325	.344	.250	.199	.152	.177
	85.00	.304	.318	.215	.144	.135	.110	.128
	90.00	.307	.258	.115	.063	.088	.070	.086
95.00	.283	.132	.085	.062	.056	.037	.044	
LOWER SURFACE	.00	.320	.361	.344	.300	.329	.272	.307
	1.25	.330	.299	.276	.253	.257	.174	.235
	2.50	.285	.233	.204	.231	.176	.123	.152
	5.00	.262	.194	.161	.172	.123	.087	.077
	7.50	.238	.167	.127	.128	.086	.045	.035
	10.00	.198	.111	.088	.053	.057	.004	.052
	15.00	.145	.083	.043	.022	.010	.004	.124
	20.00	.155	.080	.010	.006	.027	.041	.207
	25.00	.095	.019	.022	.035	.056	.076	.252
	30.00	.089	.007	.048	.065	.083	.106	.287
	35.00	.049	.029	.075	.086	.106	.127	.302
	40.00	.018	.061	.097	.111	.137	.144	.311
	45.00	.015	.087	.125	.135	.155	.173	.329
	50.00	.041	.100	.130	.143	.163	.204	.329
	55.00	.061	.109	.133	.146	.144	.226	.316
	60.00	.072	.123	.140	.150	.127	.236	.301
	65.00	.072	.123	.135	.101	.083	.226	.290
	70.00	.100	.107	.111	.073	.075	.185	.256
	75.00	.079	.113	.083	.050	.060	.164	.187
	80.00	.107	.111	.056	.036	.056	.164	.136
	85.00	.115	.084	.021	.012	.050	.130	.093
95.00	.133	.084	.021	.012	.050	.074	.032	
M = 1.03    α = 5.9°								
UPPER SURFACE	.00	.066	.183	.074	.378	.105	.134	.040
	1.25	.060	.855	.896	.861	.874	.886	.925
	2.50	.035	.812	.875	.912	.906	.932	.921
	5.00	.126	.676	.829	.850	.855	.847	.827
	7.50	.167	.373	.741	.789	.815	.830	.822
	10.00	.177	.326	.709	.733	.797	.806	.817
	15.00	.191	.294	.428	.709	.731	.793	.802
	20.00	.185	.287	.314	.577	.712	.759	.791
	25.00	.207	.286	.334	.377	.718	.735	.745
	30.00	.216	.284	.346	.374	.700	.732	.746
	35.00	.220	.292	.358	.395	.660	.721	.686
	40.00	.220	.309	.374	.420	.442	.714	.684
	45.00	.239	.321	.395	.442	.467	.654	.694
	50.00	.269	.340	.416	.464	.498	.577	.699
	55.00	.247	.359	.427	.493	.534	.564	.694
	60.00	.278	.371	.438	.439	.556	.578	.635
	65.00	.319	.346	.422	.490	.555	.573	.508
	70.00	.289	.378	.436	.473	.442	.244	.432
	75.00	.242	.366	.384	.301	.248	.183	.331
	80.00	.335	.355	.333	.175	.176	.147	.310
	85.00	.339	.276	.133	.110	.125	.108	.253
90.00	.339	.136	.073	.073	.089	.073	.203	
95.00	.326	.136	.073	.073	.089	.073	.135	
LOWER SURFACE	.00	.376	.481	.454	.417	.426	.358	.406
	1.25	.411	.414	.382	.350	.354	.265	.333
	2.50	.389	.346	.303	.323	.270	.210	.250
	5.00	.373	.294	.257	.264	.216	.174	.178
	7.50	.342	.262	.226	.206	.175	.124	.130
	10.00	.297	.199	.176	.144	.139	.075	.034
	15.00	.238	.162	.127	.106	.087	.035	.065
	20.00	.238	.129	.092	.070	.050	.002	.141
	25.00	.177	.095	.056	.042	.019	.002	.201
	30.00	.136	.070	.032	.009	.013	.032	.243
	35.00	.128	.047	.003	.017	.040	.056	.263
	40.00	.089	.012	.026	.038	.071	.091	.286
	45.00	.054	.017	.049	.055	.088	.130	.306
	50.00	.029	.026	.060	.068	.097	.162	.317
	55.00	.008	.044	.064	.085	.095	.191	.314
	60.00	.006	.058	.072	.095	.086	.208	.311
	65.00	.009	.063	.074	.077	.066	.219	.304
	70.00	.063	.047	.068	.058	.065	.184	.290
	75.00	.033	.054	.083	.048	.060	.173	.241
	80.00	.054	.058	.044	.038	.059	.160	.196
	85.00	.069	.055	.023	.017	.068	.098	.143
95.00	.061	.055	.023	.017	.068	.098	.096	

TABLE I

BASIC WING

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:												
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2						
UPPER SURFACE	M = 1.03    α = 7.9°														
	.00	-	.106	-	.019	-	.094	-	.211	-	.318	-	.368	-	.319
	1.25	-	.002	1.001	.038	-	1.005	-	1.032	-	1.008	-	1.008	-	1.062
	2.50	-	.104	.972	.991	-	1.043	-	1.046	-	1.056	-	1.056	-	1.056
	5.00	-	.212	.922	.987	-	.990	-	.998	-	.971	-	.981	-	.981
	7.50	-	.252	.801	.921	-	.948	-	.957	-	.966	-	.968	-	.968
	10.00	-	.258	.584	.911	-	.910	-	.939	-	.939	-	.953	-	.953
	15.00	-	.273	.415	.860	-	.878	-	.903	-	.921	-	.935	-	.935
	20.00	-	.257	.368	.683	-	.847	-	.879	-	.894	-	.915	-	.915
	25.00	-	.275	.352	.456	-	.839	-	.869	-	.862	-	.869	-	.869
	30.00	-	.277	.344	.399	-	.767	-	.854	-	.876	-	.831	-	.831
	35.00	-	.270	.349	.396	-	.575	-	.838	-	.869	-	.825	-	.825
	40.00	-	.274	.359	.410	-	.495	-	.829	-	.866	-	.824	-	.824
	45.00	-	.289	.370	.427	-	.480	-	.810	-	.869	-	.835	-	.835
	50.00	-	.319	.389	.450	-	.487	-	.728	-	.867	-	.841	-	.841
	55.00	-	.292	.403	.461	-	.513	-	.635	-	.866	-	.811	-	.811
	60.00	-	.327	.412	.474	-	.462	-	.599	-	.863	-	.518	-	.518
	65.00	-	.364	.391	.465	-	.523	-	.577	-	.550	-	.529	-	.529
	70.00	-	.335	-	-	-	-	-	-	-	-	-	.587	-	.587
75.00	-	.284	.418	.473	-	.521	-	.406	-	.521	-	.643	-	.643	
80.00	-	.383	.407	.483	-	.353	-	.305	-	.548	-	.649	-	.649	
85.00	-	.384	.397	.269	-	.218	-	.252	-	.543	-	.644	-	.644	
90.00	-	.378	.313	.164	-	.146	-	.205	-	.473	-	.627	-	.627	
95.00	-	.369	.164	.096	-	.112	-	.167	-	.336	-	.601	-	.601	
LOWER SURFACE	M = 1.03    α = 7.9°														
	1.25	-	.409	.573	.534	-	.495	-	.490	-	.465	-	.465	-	.465
	2.50	-	.484	.508	.469	-	.423	-	.427	-	.428	-	.400	-	.400
	5.00	-	.489	.436	.395	-	.383	-	.351	-	.341	-	.319	-	.319
	7.50	-	.483	.383	.347	-	.331	-	.296	-	.289	-	.246	-	.246
	10.00	-	.450	.354	.313	-	.280	-	.256	-	.245	-	.198	-	.198
	15.00	-	.396	.285	.260	-	.228	-	.210	-	.199	-	.109	-	.109
	20.00	-	.329	.243	.208	-	.182	-	.157	-	.146	-	.014	-	.014
	25.00	-	.318	.206	.170	-	.143	-	.116	-	.102	-	.081	-	.081
	30.00	-	.256	.171	.134	-	.116	-	.084	-	.070	-	.146	-	.146
	35.00	-	.213	.142	.103	-	.083	-	.053	-	.031	-	.190	-	.190
	40.00	-	.196	.114	.072	-	.056	-	.023	-	.000	-	.224	-	.224
	45.00	-	.161	.082	.049	-	.028	-	.006	-	.040	-	.258	-	.258
	50.00	-	.133	.051	.029	-	.003	-	.023	-	.080	-	.282	-	.282
	55.00	-	.095	.036	.017	-	.026	-	.040	-	.117	-	.297	-	.297
	60.00	-	.069	.019	.012	-	.033	-	.045	-	.147	-	.302	-	.302
	65.00	-	.063	.009	.001	-	.041	-	.043	-	.167	-	.305	-	.305
	70.00	-	.041	-	-	-	-	-	-	-	-	-	.304	-	.304
	75.00	-	.024	.003	.038	-	.045	-	.040	-	.195	-	.304	-	.304
80.00	-	.013	.020	.036	-	.034	-	.051	-	.179	-	.263	-	.263	
85.00	-	.012	.002	.031	-	.029	-	.053	-	.177	-	.232	-	.232	
90.00	-	.013	.023	.031	-	.031	-	.068	-	.177	-	.202	-	.202	
95.00	-	.026	.042	.020	-	.022	-	.083	-	.070	-	.216	-	.216	
UPPER SURFACE	M = 1.03    α = 11.5°														
	.00	-	.174	.383	.408	-	.026	-	.638	-	.741	-	.678	-	.678
	1.25	-	.114	1.026	1.061	-	1.148	-	1.162	-	1.099	-	1.028	-	1.028
	2.50	-	.238	1.014	1.012	-	1.157	-	1.167	-	1.122	-	1.015	-	1.015
	5.00	-	.389	1.038	1.040	-	1.123	-	1.142	-	1.069	-	.978	-	.978
	7.50	-	.425	1.007	.952	-	1.098	-	1.115	-	1.082	-	.986	-	.986
	10.00	-	.433	.952	.893	-	1.063	-	1.096	-	1.068	-	.992	-	.992
	15.00	-	.440	.866	.823	-	1.016	-	1.065	-	1.047	-	.941	-	.941
	20.00	-	.400	.816	.765	-	.958	-	1.035	-	1.024	-	.910	-	.910
	25.00	-	.393	.767	.726	-	.936	-	1.020	-	.976	-	.893	-	.893
	30.00	-	.381	.684	.701	-	.887	-	1.002	-	.981	-	.836	-	.836
	35.00	-	.365	.549	.681	-	.819	-	.994	-	.953	-	.790	-	.790
	40.00	-	.358	.407	.669	-	.774	-	.986	-	.973	-	.736	-	.736
	45.00	-	.363	.370	.659	-	.753	-	.940	-	.968	-	.734	-	.734
	50.00	-	.387	.399	.653	-	.738	-	.803	-	.725	-	.725	-	.725
	55.00	-	.363	.426	.636	-	.713	-	.733	-	.708	-	.713	-	.713
	60.00	-	.395	.450	.638	-	.678	-	.722	-	.697	-	.690	-	.690
	65.00	-	.432	.445	.635	-	.614	-	.715	-	.678	-	.658	-	.658
	70.00	-	.408	-	-	-	-	-	-	-	-	-	.658	-	.658
75.00	-	.367	.468	.601	-	.490	-	.723	-	.661	-	.632	-	.632	
80.00	-	.450	.465	.530	-	.433	-	.728	-	.645	-	.604	-	.604	
85.00	-	.447	.460	.452	-	.366	-	.707	-	.620	-	.588	-	.588	
90.00	-	.445	.402	.389	-	.306	-	.669	-	.591	-	.562	-	.562	
95.00	-	.433	.208	.304	-	.261	-	.601	-	.559	-	.562	-	.562	
LOWER SURFACE	M = 1.03    α = 11.5°														
	1.25	-	.431	.672	.605	-	.595	-	.542	-	.512	-	.499	-	.499
	2.50	-	.563	.634	.576	-	.536	-	.516	-	.438	-	.472	-	.472
	5.00	-	.628	.575	.515	-	.504	-	.483	-	.391	-	.398	-	.398
	7.50	-	.645	.525	.470	-	.449	-	.403	-	.391	-	.327	-	.327
	10.00	-	.610	.489	.435	-	.390	-	.366	-	.338	-	.282	-	.282
	15.00	-	.552	.422	.381	-	.340	-	.314	-	.298	-	.199	-	.199
	20.00	-	.476	.374	.328	-	.299	-	.266	-	.245	-	.089	-	.089
	25.00	-	.448	.331	.285	-	.254	-	.222	-	.196	-	.009	-	.009
	30.00	-	.384	.293	.248	-	.222	-	.186	-	.156	-	.065	-	.065
	35.00	-	.338	.254	.217	-	.186	-	.153	-	.111	-	.117	-	.117
	40.00	-	.313	.230	.185	-	.153	-	.121	-	.071	-	.168	-	.168
	45.00	-	.275	.191	.157	-	.118	-	.087	-	.028	-	.199	-	.199
	50.00	-	.243	.161	.129	-	.089	-	.061	-	.023	-	.832	-	.832
	55.00	-	.206	.140	.110	-	.067	-	.030	-	.064	-	.254	-	.254
	60.00	-	.176	.121	.094	-	.053	-	.011	-	.102	-	.266	-	.266
	65.00	-	.168	.109	.072	-	.039	-	.004	-	.129	-	.272	-	.272
	70.00	-	.137	-	-	-	-	-	-	-	-	-	.282	-	.282
	75.00	-	.072	.084	.088	-	.086	-	.028	-	.175	-	.285	-	.285
80.00	-	.089	.084	.088	-	.007	-	.087	-	.167	-	.285	-	.285	
85.00	-	.059	.047	.083	-	.024	-	.077	-	.223	-	.306	-	.306	
90.00	-	.021	.013	.007	-	.060	-	.112	-	.252	-	.318	-	.318	
95.00	-	.012	.029	.019	-	.092	-	.139	-	.289	-	.345	-	.345	

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $p$ , AT:													
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2							
		$M = 0.60 \quad \alpha = 0.0^\circ$														
UPPER SURFACE		.00	-	.233		.476		.451		.687		.437		.435		.330
		1.25		.354	-	.080	-	.029	-	.039	-	.171	-	.189	-	.154
		2.50		.083	-	.066	-	.027	-	.016	-	.077	-	.085	-	.103
		5.00		.021	-	.069	-	.034	-	.004	-	.061	-	.089	-	.048
		7.50		.009	-	.075	-	.031	-	.010	-	.033	-	.055	-	.016
		10.00		.021	-	.084	-	.052	-	.005	-	.015	-	.040	-	.016
		15.00		.046	-	.082	-	.084	-	.011	-	.013	-	.014	-	.030
		20.00		.059	-	.087	-	.051	-	.009	-	.009	-	.016	-	.045
		25.00		.075	-	.087	-	.044	-	.002	-	.008	-	.019	-	.033
		30.00		.086	-	.081	-	.034	-	.010	-	.019	-	.019	-	.042
		35.00		.079	-	.062	-	.009	-	.033	-	.042	-	.033	-	.040
		40.00		.083	-	.039	-	.028	-	.054	-	.072	-	.054	-	.041
		45.00		.080	-	.006	-	.068	-	.095	-	.108	-	.084	-	.033
		50.00		.072	-	.076	-	.133	-	.151	-	.162	-	.129	-	.034
		55.00		.018	-	.184	-	.225	-	.230	-	.240	-	.194	-	.042
		60.00		.070	-	.272	-	.312	-	.317	-	.320	-	.254	-	.038
		65.00		.277	-	.266	-	.319	-	.317	-	.315	-	.246	-	.035
		70.00		.523	-	.230	-	.328	-	.325	-	.364	-	.228	-	.042
	75.00	1	.514	-	.834	-	.389	-	.336	-	.269	-	.174	-	.040	
	80.00		.606	-	.015	1	.413	-	.346	-	.268	-	.164	-	.047	
	85.00		.475	-	.918	-	.443	-	.352	-	.267	-	.153	-	.068	
	90.00		.036	-	.659	-	.451	-	.361	-	.271	-	.138	-	.081	
	95.00		.022	-	.297	-	.414	-	.339	-	.263	-	.138	-	.079	
LOWER SURFACE		1.25		.126	-	.127	-	.188	-	.236	-	.364	-	.448	-	.467
		2.50		.068	-	.094	-	.135	-	.172	-	.255	-	.292	-	.324
		5.00		.028	-	.091	-	.120	-	.106	-	.218	-	.255	-	.252
		7.50		.010	-	.105	-	.133	-	.133	-	.210	-	.235	-	.246
		10.00		.033	-	.111	-	.139	-	.149	-	.204	-	.235	-	.238
		15.00		.060	-	.130	-	.158	-	.174	-	.191	-	.208	-	.216
		20.00		.098	-	.146	-	.164	-	.176	-	.202	-	.215	-	.205
		25.00		.074	-	.152	-	.169	-	.183	-	.212	-	.216	-	.178
		30.00		.125	-	.164	-	.174	-	.184	-	.213	-	.217	-	.171
		35.00		.135	-	.176	-	.179	-	.197	-	.216	-	.222	-	.171
		40.00		.141	-	.179	-	.188	-	.200	-	.222	-	.222	-	.175
		45.00		.156	-	.184	-	.190	-	.206	-	.225	-	.218	-	.163
		50.00		.175	-	.190	-	.191	-	.208	-	.225	-	.218	-	.156
		55.00		.177	-	.180	-	.183	-	.203	-	.222	-	.214	-	.144
		60.00		.179	-	.172	-	.155	-	.196	-	.214	-	.197	-	.133
		65.00		.178	-	.158	-	.159	-	.186	-	.199	-	.178	-	.116
		70.00		.165	-		-		-		-		-		-	.117
		75.00		.159	-	.108	-	.124	-	.177	-	.181	-	.130	-	.099
	80.00		.141	-	.091	-	.144	-	.158	-	.169	-	.120	-	.087	
	85.00		.130	-	.072	-	.142	-	.151	-	.164	-	.122	-	.083	
	90.00		.094	-	.031	-	.157	-	.161	-	.134	-	.127	-	.063	
	95.00		.065	-	.003	-	.167	-	.178	-	.176	-	.121	-	.061	
		$M = 0.60 \quad \alpha = 4.0^\circ$														
UPPER SURFACE		.00	-	.160	-	.151	-	.251	-	.071	-	.358	-	.238	-	.060
		1.25	-	.142	-	.964	1	.042	-	.920	-	.857	-	.866	-	.684
		2.50	-	.214	-	.553	-	.570	-	.603	-	.567	-	.544	-	.456
		5.00	-	.244	-	.419	-	.426	-	.416	-	.338	-	.313	-	.310
		7.50	-	.249	-	.363	-	.350	-	.333	-	.296	-	.266	-	.267
		10.00	-	.238	-	.336	-	.321	-	.291	-	.276	-	.232	-	.229
		15.00	-	.238	-	.291	-	.271	-	.242	-	.202	-	.196	-	.160
		20.00	-	.231	-	.265	-	.230	-	.200	-	.169	-	.149	-	.141
		25.00	-	.231	-	.244	-	.194	-	.165	-	.133	-	.110	-	.110
		30.00	-	.230	-	.217	-	.163	-	.131	-	.103	-	.087	-	.088
		35.00	-	.209	-	.183	-	.121	-	.088	-	.067	-	.047	-	.077
		40.00	-	.203	-	.143	-	.071	-	.045	-	.012	-	.008	-	.063
		45.00	-	.188	-	.076	-	.014	-	.015	-	.046	-	.049	-	.057
		50.00	-	.171	-	.013	-	.066	-	.083	-	.112	-	.111	-	.044
		55.00	-	.094	-	.120	-	.134	-	.143	-	.175	-	.155	-	.038
		60.00	-	.008	-	.155	-	.155	-	.187	-	.186	-	.164	-	.026
		65.00	-	.201	-	.157	-	.154	-	.175	-	.180	-	.147	-	.027
		70.00	-	.431	-	.097	-	.160	-	.188	-	.194	-	.144	-	.028
	75.00	1	.390	-	.764	-	.387	-	.329	-	.247	-	.155	-	.030	
	80.00		.779	-	.889	-	.398	-	.330	-	.248	-	.144	-	.036	
	85.00		.362	-	.837	-	.419	-	.342	-	.243	-	.136	-	.038	
	90.00		.166	-	.693	-	.428	-	.353	-	.247	-	.128	-	.042	
	95.00		.045	-	.473	-	.405	-	.340	-	.258	-	.121	-	.035	
LOWER SURFACE		1.25		.303	-	.346	-	.363	-	.331	-	.341	-	.330	-	.256
		2.50		.270	-	.264	-	.270	-	.257	-	.257	-	.246	-	.175
		5.00		.222	-	.186	-	.179	-	.191	-	.168	-	.147	-	.097
		7.50		.179	-	.140	-	.138	-	.140	-	.116	-	.101	-	.033
		10.00		.146	-	.107	-	.099	-	.099	-	.075	-	.090	-	.015
		15.00		.115	-	.062	-	.062	-	.043	-	.041	-	.028	-	.067
		20.00		.065	-	.030	-	.019	-	.007	-	.003	-	.021	-	.087
		25.00		.062	-	.000	-	.016	-	.027	-	.038	-	.049	-	.090
		30.00		.016	-	.023	-	.037	-	.048	-	.056	-	.074	-	.107
		35.00		.007	-	.050	-	.059	-	.071	-	.076	-	.092	-	.110
		40.00		.022	-	.058	-	.074	-	.088	-	.094	-	.110	-	.121
		45.00		.045	-	.079	-	.086	-	.107	-	.110	-	.127	-	.119
		50.00		.072	-	.091	-	.102	-	.121	-	.126	-	.134	-	.123
		55.00		.079	-	.093	-	.106	-	.128	-	.136	-	.146	-	.117
		60.00		.087	-	.090	-	.090	-	.129	-	.136	-	.142	-	.101
		65.00		.096	-	.094	-	.106	-	.134	-	.134	-	.133	-	.099
		70.00		.085	-		-		-		-		-		-	.094
		75.00		.093	-	.062	-	.134	-	.139	-	.132	-	.080	-	.070
	80.00		.083	-	.056	-	.115	-	.128	-	.131	-	.088	-	.065	
	85.00		.083	-	.045	-	.117	-	.130	-	.132	-	.088	-	.064	
	90.00		.065	-	.039	-	.144	-	.146	-	.104	-	.097	-	.041	
	95.00		.065	-	.042	-	.154	-	.170	-	.158	-	.096	-	.028	

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:													
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2							
		$M = 0.60 \quad \alpha = 6.0^\circ$														
UPPER SURFACE		.00	-	.138	-	.652	-	.743	-	.331	-	1.080	-	.834	-	.739
		1.25	-	.337	-	1.463	-	.877	-	.758	-	1.023	-	.817	-	.927
		2.50	-	.400	-	.912	-	.807	-	.716	-	.903	-	.650	-	.686
		5.00	-	.404	-	.676	-	.723	-	.657	-	.705	-	.560	-	.538
		7.50	-	.393	-	.570	-	.622	-	.588	-	.595	-	.492	-	.454
		10.00	-	.364	-	.508	-	.570	-	.527	-	.497	-	.444	-	.353
		15.00	-	.345	-	.422	-	.463	-	.433	-	.357	-	.350	-	.235
		20.00	-	.325	-	.370	-	.369	-	.352	-	.278	-	.272	-	.174
		25.00	-	.314	-	.330	-	.305	-	.285	-	.214	-	.201	-	.132
		30.00	-	.307	-	.289	-	.248	-	.227	-	.165	-	.153	-	.108
		35.00	-	.276	-	.248	-	.196	-	.177	-	.119	-	.097	-	.087
		40.00	-	.263	-	.198	-	.137	-	.126	-	.066	-	.052	-	.064
		45.00	-	.245	-	.126	-	.080	-	.066	-	.014	-	.004	-	.047
		50.00	-	.224	-	.036	-	.015	-	.011	-	.034	-	.043	-	.040
		55.00	-	.135	-	.065	-	.058	-	.046	-	.084	-	.086	-	.040
		60.00	-	.039	-	.099	-	.105	-	.115	-	.120	-	.112	-	.044
		65.00	-	.173	-	.086	-	.115	-	.110	-	.135	-	.116	-	.048
		70.00	-	.418	-	.034	-	.130	-	.130	-	.170	-	.116	-	.058
		75.00	-	1.273	-	.721	-	.380	-	.314	-	.255	-	.155	-	.065
	80.00	-	.919	-	.629	-	.396	-	.318	-	.259	-	.146	-	.070	
	85.00	-	.435	-	.775	-	.410	-	.332	-	.267	-	.134	-	.070	
	90.00	-	.413	-	.669	-	.419	-	.331	-	.270	-	.126	-	.077	
	95.00	-	.094	-	.512	-	.392	-	.312	-	.261	-	.121	-	.068	
LOWER SURFACE		1.25	-	.360	-	.450	-	.447	-	.426	-	.440	-	.437	-	.387
		2.50	-	.340	-	.381	-	.376	-	.363	-	.374	-	.370	-	.303
		5.00	-	.302	-	.298	-	.288	-	.296	-	.288	-	.259	-	.205
		7.50	-	.276	-	.244	-	.230	-	.248	-	.221	-	.208	-	.134
		10.00	-	.243	-	.203	-	.195	-	.197	-	.184	-	.197	-	.071
		15.00	-	.200	-	.148	-	.149	-	.130	-	.129	-	.124	-	.014
		20.00	-	.147	-	.107	-	.089	-	.089	-	.081	-	.067	-	.007
		25.00	-	.091	-	.044	-	.032	-	.049	-	.043	-	.023	-	.035
		30.00	-	.061	-	.017	-	.008	-	.006	-	.018	-	.037	-	.081
		35.00	-	.043	-	.001	-	.017	-	.027	-	.035	-	.059	-	.101
		40.00	-	.014	-	.025	-	.035	-	.051	-	.063	-	.083	-	.097
		45.00	-	.013	-	.041	-	.054	-	.069	-	.079	-	.101	-	.100
		50.00	-	.026	-	.047	-	.062	-	.087	-	.092	-	.111	-	.100
		55.00	-	.035	-	.047	-	.052	-	.093	-	.095	-	.113	-	.089
		60.00	-	.051	-	.050	-	.075	-	.094	-	.099	-	.108	-	.082
		65.00	-	.043	-	-	-	-	-	-	-	-	-	-	-	.084
		70.00	-	.056	-	.037	-	.090	-	.108	-	.103	-	.066	-	.062
		75.00	-	.049	-	.039	-	.092	-	.102	-	.104	-	.074	-	.062
		80.00	-	.055	-	.025	-	.102	-	.106	-	.107	-	.082	-	.064
	85.00	-	.045	-	.037	-	.124	-	.121	-	.084	-	.092	-	.042	
	90.00	-	.035	-	.069	-	.137	-	.146	-	.134	-	.092	-	.042	
		$M = 0.60 \quad \alpha = 8.0^\circ$														
UPPER SURFACE		.00	-	.127	-	1.176	-	1.101	-	.689	-	1.337	-	.914	-	.987
		1.25	-	.575	-	1.129	-	.931	-	1.090	-	.983	-	.667	-	.814
		2.50	-	.618	-	1.069	-	.894	-	.999	-	.985	-	.650	-	.786
		5.00	-	.596	-	.987	-	.847	-	.900	-	.920	-	.611	-	.740
		7.50	-	.566	-	.875	-	.782	-	.760	-	.872	-	.596	-	.714
		10.00	-	.520	-	.776	-	.739	-	.655	-	.824	-	.564	-	.655
		15.00	-	.473	-	.645	-	.639	-	.550	-	.640	-	.517	-	.551
		20.00	-	.435	-	.552	-	.544	-	.493	-	.460	-	.447	-	.436
		25.00	-	.411	-	.470	-	.479	-	.447	-	.353	-	.387	-	.353
		30.00	-	.397	-	.407	-	.409	-	.387	-	.286	-	.344	-	.236
		35.00	-	.357	-	.345	-	.343	-	.335	-	.237	-	.297	-	.186
		40.00	-	.337	-	.286	-	.277	-	.280	-	.194	-	.236	-	.137
		45.00	-	.313	-	.221	-	.219	-	.230	-	.159	-	.179	-	.113
		50.00	-	.289	-	.187	-	.186	-	.176	-	.111	-	.122	-	.094
		55.00	-	.187	-	.057	-	.087	-	.132	-	.080	-	.072	-	.094
		60.00	-	.078	-	.007	-	.063	-	.087	-	.056	-	.036	-	.094
		65.00	-	.116	-	.043	-	.066	-	.105	-	.037	-	.049	-	.094
		70.00	-	.385	-	.069	-	.007	-	.036	-	.029	-	.018	-	.106
		75.00	-	1.193	-	.675	-	.398	-	.337	-	.292	-	.194	-	.106
	80.00	-	.933	-	.768	-	.430	-	.351	-	.302	-	.179	-	.105	
	85.00	-	.535	-	.696	-	.410	-	.324	-	.291	-	.160	-	.095	
	90.00	-	.274	-	.566	-	.372	-	.280	-	.263	-	.137	-	.099	
	95.00	-	.160	-	.431	-	.324	-	.253	-	.239	-	.127	-	.089	
LOWER SURFACE		1.25	-	.374	-	.484	-	.466	-	.473	-	.461	-	.459	-	.431
		2.50	-	.367	-	.444	-	.425	-	.434	-	.436	-	.428	-	.374
		5.00	-	.371	-	.370	-	.359	-	.383	-	.365	-	.340	-	.285
		7.50	-	.366	-	.321	-	.310	-	.326	-	.304	-	.278	-	.204
		10.00	-	.327	-	.278	-	.272	-	.279	-	.265	-	.268	-	.138
		15.00	-	.287	-	.218	-	.215	-	.203	-	.211	-	.182	-	.065
		20.00	-	.237	-	.174	-	.162	-	.158	-	.158	-	.129	-	.014
		25.00	-	.210	-	.130	-	.120	-	.113	-	.110	-	.079	-	.009
		30.00	-	.155	-	.101	-	.087	-	.074	-	.080	-	.047	-	.038
		35.00	-	.121	-	.070	-	.060	-	.054	-	.050	-	.009	-	.052
		40.00	-	.099	-	.049	-	.027	-	.023	-	.023	-	.019	-	.071
		45.00	-	.070	-	.023	-	.011	-	.008	-	.004	-	.046	-	.068
		50.00	-	.042	-	.003	-	.008	-	.018	-	.023	-	.060	-	.069
		55.00	-	.023	-	.005	-	.019	-	.033	-	.040	-	.082	-	.068
		60.00	-	.005	-	.011	-	.014	-	.045	-	.049	-	.086	-	.063
		65.00	-	.006	-	.023	-	.045	-	.058	-	.052	-	.083	-	.061
		70.00	-	.001	-	-	-	-	-	-	-	-	-	-	-	.062
		75.00	-	.023	-	.008	-	.069	-	.069	-	.062	-	.066	-	.044
		80.00	-	.012	-	.020	-	.066	-	.065	-	.070	-	.072	-	.044
	85.00	-	.020	-	.028	-	.071	-	.069	-	.072	-	.072	-	.048	
	90.00	-	.024	-	.063	-	.103	-	.106	-	.104	-	.089	-	.043	
	95.00	-	.012	-	.063	-	.103	-	.106	-	.104	-	.087	-	.044	

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
$M = 0.60 \quad \alpha = 11.3^\circ$							
UPPER SURFACE							
1.00	0.034	1.770	1.529	1.124	0.786	0.470	0.416
1.25	0.063	1.393	1.100	0.957	0.675	0.439	0.327
2.50	0.134	1.422	1.079	0.964	0.675	0.434	0.330
5.00	0.079	1.455	1.098	0.969	0.670	0.431	0.314
7.50	0.080	1.533	1.073	0.971	0.666	0.425	0.306
10.00	0.865	1.640	1.070	0.965	0.661	0.420	0.303
15.00	0.737	1.582	1.040	0.954	0.652	0.408	0.293
20.00	0.650	1.390	1.007	0.944	0.642	0.395	0.281
25.00	0.596	1.065	0.976	0.930	0.635	0.377	0.278
30.00	0.571	0.658	0.934	0.899	0.616	0.360	0.254
35.00	0.519	0.358	0.892	0.863	0.603	0.345	0.268
40.00	0.478	0.234	0.839	0.820	0.603	0.333	0.262
45.00	0.429	0.175	0.772	0.771	0.585	0.321	0.249
50.00	0.376	0.117	0.697	0.714	0.562	0.309	0.232
55.00	0.262	0.016	0.604	0.654	0.535	0.297	0.215
60.00	0.141	0.074	0.521	0.560	0.502	0.285	0.200
65.00	0.002	0.001	0.485	0.535	0.466	0.274	0.004
70.00	0.305	0.678	0.471	0.482	0.411	0.277	0.183
75.00	1.130	0.738	0.442	0.463	0.412	0.271	0.182
80.00	0.905	0.682	0.339	0.440	0.435	0.268	0.173
85.00	0.606	0.554	0.261	0.383	0.403	0.250	0.176
90.00	0.372	0.390	0.197	0.344	0.375	0.245	0.169
95.00	0.234	0.390	0.197	0.344	0.375	0.245	0.169
1.25	0.366	0.487	0.461	0.501	0.476	0.477	0.411
2.50	0.382	0.524	0.504	0.508	0.491	0.477	0.378
5.00	0.534	0.490	0.467	0.470	0.438	0.403	0.310
7.50	0.494	0.446	0.485	0.429	0.390	0.351	0.237
10.00	0.465	0.405	0.390	0.388	0.348	0.335	0.176
15.00	0.433	0.328	0.328	0.312	0.288	0.250	0.120
20.00	0.364	0.287	0.276	0.260	0.240	0.194	0.046
25.00	0.331	0.243	0.232	0.221	0.194	0.146	0.018
30.00	0.285	0.205	0.197	0.185	0.155	0.100	0.014
35.00	0.236	0.172	0.171	0.149	0.115	0.060	0.021
40.00	0.214	0.145	0.135	0.128	0.092	0.028	0.056
45.00	0.174	0.110	0.112	0.091	0.032	0.002	0.070
50.00	0.128	0.089	0.081	0.067	0.035	0.052	0.081
55.00	0.127	0.069	0.070	0.045	0.014	0.067	0.084
60.00	0.095	0.055	0.059	0.038	0.023	0.073	0.077
65.00	0.084	0.052	0.043	0.021	0.062	0.061	0.081
70.00	0.070	0.042	0.013	0.019	0.074	0.082	0.075
75.00	0.033	0.021	0.020	0.016	0.099	0.108	0.087
80.00	0.039	0.005	0.013	0.023	0.097	0.124	0.090
85.00	0.041	0.002	0.005	0.055	0.097	0.146	0.090
90.00	0.017	0.002	0.002	0.091	0.170	0.146	0.104
95.00	0.013	0.035	0.002	0.091	0.170	0.146	0.104
$M = 0.60 \quad \alpha = 15.5^\circ$							
UPPER SURFACE							
1.00	0.088	2.006	1.803	0.642	0.526	0.462	0.457
1.25	0.570	1.948	1.167	0.763	0.516	0.446	0.395
2.50	1.809	1.948	1.167	0.759	0.516	0.448	0.394
5.00	1.866	1.946	1.194	0.754	0.524	0.443	0.398
7.50	1.594	1.994	1.184	0.745	0.522	0.450	0.387
10.00	1.274	2.070	1.182	0.745	0.524	0.451	0.381
15.00	1.053	2.025	1.163	0.734	0.525	0.452	0.382
20.00	0.941	1.939	1.157	0.721	0.519	0.442	0.380
25.00	0.770	1.751	1.164	0.716	0.515	0.446	0.373
30.00	0.681	1.433	1.166	0.714	0.507	0.437	0.367
35.00	0.618	1.058	1.156	0.714	0.498	0.429	0.357
40.00	0.580	0.739	1.129	0.703	0.492	0.421	0.351
45.00	0.534	0.518	1.073	0.686	0.484	0.409	0.340
50.00	0.478	0.362	1.015	0.673	0.479	0.403	0.336
55.00	0.362	0.190	0.947	0.657	0.467	0.407	0.326
60.00	0.266	0.128	0.872	0.605	0.457	0.405	0.320
65.00	0.205	0.083	0.841	0.623	0.435	0.393	0.001
70.00	0.085	0.198	0.849	0.604	0.434	0.343	0.309
75.00	1.179	0.618	0.657	0.534	0.434	0.344	0.302
80.00	0.731	0.617	0.665	0.551	0.429	0.338	0.290
85.00	0.496	0.448	0.610	0.564	0.418	0.325	0.280
90.00	0.368	0.247	0.565	0.543	0.404	0.319	0.265
95.00	0.247	0.247	0.529	0.529	0.404	0.319	0.265
1.25	0.257	0.435	0.396	0.476	0.445	0.430	0.397
2.50	0.317	0.570	0.589	0.528	0.502	0.480	0.400
5.00	0.530	0.883	0.840	0.583	0.477	0.436	0.352
7.50	0.613	0.555	0.810	0.498	0.436	0.392	0.287
10.00	0.593	0.526	0.489	0.448	0.401	0.377	0.287
15.00	0.569	0.456	0.371	0.339	0.343	0.297	0.158
20.00	0.497	0.417	0.384	0.294	0.289	0.238	0.080
25.00	0.458	0.366	0.286	0.250	0.242	0.184	0.048
30.00	0.411	0.324	0.248	0.211	0.208	0.140	0.000
35.00	0.389	0.288	0.213	0.173	0.158	0.092	0.030
40.00	0.330	0.257	0.180	0.138	0.121	0.051	0.000
45.00	0.291	0.223	0.151	0.108	0.079	0.008	0.000
50.00	0.236	0.189	0.127	0.070	0.041	0.022	0.000
55.00	0.280	0.169	0.108	0.039	0.006	0.056	0.000
60.00	0.195	0.146	0.076	0.014	0.017	0.074	0.000
65.00	0.170	0.128	0.076	0.014	0.017	0.093	0.000
70.00	0.146	0.111	0.034	0.068	0.090	0.093	0.000
75.00	0.106	0.077	0.014	0.076	0.115	0.112	0.000
80.00	0.107	0.077	0.011	0.104	0.146	0.147	0.000
85.00	0.108	0.089	0.009	0.164	0.175	0.175	0.000
90.00	0.061	0.089	0.009	0.237	0.238	0.201	0.000
95.00	0.049	0.040	0.009	0.237	0.238	0.201	0.000
LOWER SURFACE							
1.00	0.088	2.006	1.803	0.642	0.526	0.462	0.457
1.25	0.570	1.948	1.167	0.763	0.516	0.446	0.395
2.50	1.809	1.948	1.167	0.759	0.516	0.448	0.394
5.00	1.866	1.946	1.194	0.754	0.524	0.443	0.398
7.50	1.594	1.994	1.184	0.745	0.522	0.450	0.387
10.00	1.274	2.070	1.182	0.745	0.524	0.451	0.381
15.00	1.053	2.025	1.163	0.734	0.525	0.452	0.382
20.00	0.941	1.939	1.157	0.721	0.519	0.442	0.380
25.00	0.770	1.751	1.164	0.716	0.515	0.446	0.373
30.00	0.681	1.433	1.166	0.714	0.507	0.437	0.367
35.00	0.618	1.058	1.156	0.714	0.498	0.429	0.357
40.00	0.580	0.739	1.129	0.703	0.492	0.421	0.351
45.00	0.534	0.518	1.073	0.686	0.484	0.409	0.340
50.00	0.478	0.362	1.015	0.673	0.479	0.403	0.336
55.00	0.362	0.190	0.947	0.657	0.467	0.407	0.326
60.00	0.266	0.128	0.872	0.605	0.457	0.405	0.320
65.00	0.205	0.083	0.841	0.623	0.435	0.393	0.001
70.00	0.085	0.198	0.849	0.604	0.434	0.343	0.309
75.00	1.179	0.618	0.657	0.534	0.434	0.344	0.302
80.00	0.731	0.617	0.665	0.551	0.429	0.338	0.290
85.00	0.496	0.448	0.610	0.564	0.418	0.325	0.280
90.00	0.368	0.247	0.565	0.543	0.404	0.319	0.265
95.00	0.247	0.247	0.529	0.529	0.404	0.319	0.265
1.25	0.257	0.435	0.396	0.476	0.445	0.430	0.397
2.50	0.317	0.570	0.589	0.528	0.502	0.480	0.400
5.00	0.530	0.883	0.840	0.583	0.477	0.436	0.352
7.50	0.613	0.555	0.810	0.498	0.436	0.392	0.287
10.00	0.593	0.526	0.489	0.448	0.401	0.377	0.287
15.00	0.569	0.456	0.371	0.339	0.343	0.297	0.158
20.00	0.497	0.417	0.384	0.294	0.289	0.238	0.080
25.00	0.458	0.366	0.286	0.250	0.242	0.184	0.048
30.00	0.411	0.324	0.248	0.211	0.208	0.140	0.000
35.00	0.389	0.288	0.213	0.173	0.158	0.092	0.030
40.00	0.330	0.257	0.180	0.138	0.121	0.051	0.000
45.00	0.291	0.223	0.151	0.108	0.079	0.008	0.000
50.00	0.236	0.189	0.127	0.070	0.041	0.022	0.000
55.00	0.280	0.169	0.108	0.039	0.006	0.056	0.000
60.00	0.195	0.146	0.076	0.014	0.017	0.074	0.000
65.00	0.170	0.128	0.076	0.014	0.017	0.093	0.000
70.00	0.146	0.111	0.034	0.068	0.090	0.093	0.000
75.00	0.106	0.077	0.014	0.076	0.115	0.112	0.000
80.00	0.107	0.077	0.011	0.104	0.146	0.147	0.000
85.00	0.108	0.089	0.009	0.164	0.175	0.175	0.000
90.00	0.061	0.089	0.009	0.237	0.238	0.201	0.000
95.00	0.049	0.040	0.009	0.237	0.238	0.201	0.000

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PRESSURE COEFFICIENT, P, AT:						
PERCENT CHORD		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.85 $\alpha = 0.0^\circ$								
UPPER SURFACE	.00	.177	.512	.478	.749	.476	.465	.366
	1.25	.209	.068	.041	.008	.161	.200	.173
	2.50	.133	.060	.033	.008	.066	.087	.123
	5.00	.061	.060	.039	.013	.054	.095	.062
	7.50	.022	.071	.040	.001	.025	.062	.032
	10.00	.007	.082	.081	.002	.009	.048	.014
	15.00	.028	.087	.081	.015	.011	.018	.045
	20.00	.050	.090	.042	.009	.017	.020	.058
	25.00	.071	.090	.033	.000	.031	.023	.044
	30.00	.087	.080	.019	.039	.054	.026	.038
	35.00	.080	.056	.003	.067	.083	.042	.034
	40.00	.086	.013	.037	.112	.126	.061	.021
	45.00	.082	.055	.083	.174	.185	.095	.039
	50.00	.067	.144	.156	.260	.270	.147	.048
	55.00	.006	.251	.283	.347	.323	.240	.062
	60.00	.138	.277	.318	.340	.333	.266	.049
	65.00	.343	.277	.385	.349	.352	.240	.053
LOWER SURFACE	70.00	.571	.289	.397	.321	.272	.189	.057
	75.00	1.165	.764	.407	.322	.268	.182	.071
	80.00	.635	.837	.421	.326	.270	.170	.091
	85.00	.479	.796	.430	.331	.275	.165	.100
	90.00	.236	.711	.430	.326	.281	.159	.097
	95.00	.169	.557	.416	.326	.281	.159	.097
	1.25	.179	.102	.168	.219	.370	.478	.560
	2.50	.119	.075	.123	.183	.267	.329	.416
	5.00	.068	.076	.121	.110	.229	.279	.303
	7.50	.021	.095	.134	.144	.233	.271	.315
	10.00	.003	.105	.145	.170	.233	.212	.321
	15.00	.040	.129	.169	.211	.218	.250	.273
	20.00	.086	.147	.183	.216	.240	.266	.251
	25.00	.084	.164	.200	.223	.247	.277	.221
	30.00	.126	.183	.218	.231	.257	.288	.207
	35.00	.136	.200	.236	.242	.270	.296	.209
	40.00	.142	.208	.242	.253	.276	.276	.202
45.00	.172	.229	.253	.263	.292	.263	.191	
50.00	.204	.243	.253	.268	.285	.254	.178	
55.00	.208	.237	.242	.265	.285	.239	.156	
60.00	.221	.231	.225	.260	.273	.207	.136	
65.00	.233	.219	.208	.255	.251	.207	.124	
70.00	.211	.180	.216	.241	.223	.146	.110	
75.00	.216	.155	.202	.221	.205	.132	.104	
80.00	.207	.136	.203	.211	.197	.128	.096	
85.00	.195	.103	.216	.214	.197	.137	.076	
90.00	.167	.103	.216	.214	.197	.137	.076	
95.00	.138	.107	.225	.227	.205	.135	.076	
M = 0.85 $\alpha = 4.0^\circ$								
UPPER SURFACE	.00	.196	.110	.000	.251	.123	.096	.043
	1.25	.020	.930	.019	.006	.917	.888	.826
	2.50	.123	.789	.033	.812	.784	.726	.677
	5.00	.186	.400	.463	.437	.382	.331	.347
	7.50	.207	.371	.395	.358	.344	.302	.319
	10.00	.222	.346	.354	.310	.306	.264	.271
	15.00	.230	.313	.328	.260	.284	.217	.167
	20.00	.230	.290	.331	.211	.179	.168	.136
	25.00	.241	.269	.180	.173	.145	.121	.101
	30.00	.245	.235	.157	.130	.103	.086	.076
	35.00	.230	.184	.112	.082	.055	.040	.059
	40.00	.225	.114	.063	.035	.001	.009	.046
	45.00	.211	.016	.002	.030	.054	.062	.041
	50.00	.188	.093	.073	.092	.116	.111	.039
	55.00	.071	.173	.136	.150	.165	.145	.042
	60.00	.050	.155	.157	.193	.190	.143	.037
	65.00	.259	.069	.174	.198	.186	.133	.041
	70.00	.457	.032	.405	.320	.251	.173	.048
	75.00	1.038	.721	.412	.328	.247	.164	.046
LOWER SURFACE	80.00	.743	.753	.486	.328	.248	.154	.048
	85.00	.621	.711	.437	.332	.251	.154	.055
	90.00	.407	.638	.437	.329	.252	.150	.060
	95.00	.241	.538	.480	.329	.252	.146	.053
	1.25	.328	.336	.347	.333	.337	.337	.274
	2.50	.303	.264	.269	.259	.261	.258	.190
	5.00	.259	.193	.182	.193	.168	.147	.105
	7.50	.211	.142	.136	.143	.110	.096	.027
	10.00	.180	.113	.098	.097	.075	.095	.024
	15.00	.138	.066	.052	.040	.041	.013	.105
	20.00	.083	.031	.028	.001	.012	.034	.132
	25.00	.080	.001	.023	.037	.046	.072	.146
	30.00	.088	.087	.083	.060	.075	.102	.153
	35.00	.003	.032	.078	.088	.101	.138	.157
	40.00	.014	.072	.099	.107	.121	.164	.155
	45.00	.041	.096	.115	.131	.148	.196	.152
	50.00	.076	.127	.135	.159	.175	.199	.144
55.00	.088	.121	.133	.163	.178	.194	.126	
60.00	.099	.121	.135	.167	.178	.177	.113	
65.00	.115	.115	.135	.167	.178	.177	.108	
70.00	.108	.109	.164	.178	.172	.128	.086	
75.00	.117	.107	.154	.167	.169	.121	.078	
80.00	.117	.108	.168	.165	.164	.104	.066	
85.00	.124	.108	.185	.177	.187	.127	.051	
90.00	.109	.110	.198	.199	.182	.123	.038	
95.00	.117	.153	.198	.199	.182	.123	.038	

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 0.85 \quad \alpha = 5.9^\circ$							
	0.00	.206	-.178	-.275	-.109	-.530	-.444	-.368
	1.25	.139	1.194	1.134	.779	1.040	.742	.821
	2.50	.251	1.169	.895	.724	.869	.628	.798
	3.75	.381	.768	.765	.665	.732	.574	.726
	5.00	.338	.574	.665	.607	.636	.544	.683
	7.50	.326	.491	.600	.551	.566	.499	.639
	10.00	.331	.441	.482	.473	.452	.435	.447
	15.00	.329	.420	.372	.386	.338	.358	.275
	20.00	.336	.381	.300	.315	.249	.288	.151
	25.00	.331	.327	.239	.251	.190	.225	.095
	30.00	.317	.253	.183	.194	.134	.167	.054
	35.00	.312	.169	.130	.143	.080	.108	.049
	40.00	.286	.072	.075	.091	.031	.054	.042
	45.00	.247	.039	.011	.038	.019	.002	.041
	50.00	.112	.119	.048	.012	.057	.038	.053
	55.00	.015	.113	.080	.074	.095	.067	.057
	60.00	.227	.048	.083	.047	.115	.051	.064
	65.00	.434	.005	.111	.085	.158	.085	.075
	70.00	.012	.716	.404	.338	.287	.191	.078
75.00	.771	.741	.419	.347	.293	.183	.078	
80.00	.645	.701	.434	.357	.296	.176	.078	
85.00	.443	.638	.439	.350	.289	.163	.075	
90.00	.395	.545	.413	.338	.265	.149	.068	
95.00								
LOWER SURFACE	1.25	.378	.441	.438	.420	.429	.428	.386
	2.50	.373	.366	.360	.344	.359	.353	.303
	3.75	.337	.288	.276	.292	.264	.247	.207
	5.00	.299	.234	.223	.241	.206	.189	.128
	7.50	.263	.202	.186	.193	.162	.180	.069
	10.00	.220	.143	.136	.116	.117	.095	.031
	15.00	.182	.102	.085	.074	.062	.039	.072
	20.00	.154	.067	.048	.034	.022	.004	.106
	25.00	.098	.032	.013	.008	.008	.038	.123
	30.00	.068	.011	.001	.003	.040	.078	.128
	35.00	.018	.015	.001	.051	.066	.110	.134
	40.00	.014	.040	.060	.077	.092	.136	.134
	45.00	.031	.063	.081	.096	.112	.158	.130
	50.00	.049	.077	.089	.115	.130	.167	.126
	55.00	.063	.084	.100	.128	.135	.163	.108
	60.00	.059	.077	.130	.147	.139	.128	.098
	65.00	.076	.086	.134	.140	.141	.102	.068
	70.00	.092	.095	.139	.142	.145	.091	.063
	75.00	.083	.109	.162	.157	.104	.110	.046
	80.00	.111	.145	.181	.176	.159	.109	.041
85.00								
90.00								
95.00								
UPPER SURFACE	$M = 0.85 \quad \alpha = 8.0^\circ$							
	0.00	.204	-.493	-.543	-.070	-.843	-.797	-.785
	1.25	.277	1.370	.956	.946	1.008	.693	.829
	2.50	.407	1.388	.897	.877	.972	.679	.815
	3.75	.500	1.243	.859	.828	.943	.645	.805
	5.00	.522	.842	.774	.781	.922	.631	.801
	7.50	.499	.735	.733	.750	.896	.610	.788
	10.00	.484	.647	.668	.696	.772	.572	.717
	15.00	.452	.600	.589	.661	.567	.533	.624
	20.00	.447	.531	.518	.637	.438	.492	.500
	25.00	.433	.424	.456	.585	.365	.462	.372
	30.00	.441	.323	.389	.507	.323	.420	.260
	35.00	.448	.243	.320	.407	.280	.378	.183
	40.00	.391	.157	.259	.300	.243	.324	.155
	45.00	.319	.068	.201	.215	.201	.271	.140
	50.00	.170	.016	.142	.149	.166	.225	.140
	55.00	.036	.083	.118	.078	.129	.166	.140
	60.00	.173	.073	.124	.103	.089	.178	.144
	65.00	.381	.075	.062	.038	.012	.107	.147
	70.00	.977	.716	.420	.350	.313	.241	.143
75.00	.796	.727	.451	.366	.317	.228	.137	
80.00	.683	.682	.443	.342	.288	.193	.128	
85.00	.531	.617	.412	.305	.257	.162	.120	
90.00	.399	.529	.370	.263	.227	.143	.109	
95.00								
LOWER SURFACE	1.25	.403	.511	.492	.503	.473	.473	.433
	2.50	.434	.452	.433	.409	.428	.428	.375
	3.75	.414	.376	.356	.367	.348	.334	.285
	5.00	.394	.320	.304	.314	.287	.277	.210
	7.50	.356	.286	.288	.268	.248	.267	.143
	10.00	.311	.218	.207	.191	.193	.179	.051
	15.00	.243	.174	.158	.142	.138	.119	.020
	20.00	.228	.138	.114	.102	.100	.075	.063
	25.00	.170	.104	.079	.071	.060	.033	.093
	30.00	.138	.069	.053	.036	.032	.010	.104
	35.00	.108	.044	.024	.006	.003	.045	.111
	40.00	.077	.017	.001	.025	.085	.079	.114
	45.00	.046	.008	.008	.046	.047	.105	.110
	50.00	.023	.018	.041	.063	.069	.122	.104
	55.00	.001	.034	.048	.074	.081	.128	.091
	60.00	.011	.043	.089	.089	.081	.121	.083
	65.00	.018	.018	.018	.018	.018	.018	.018
	70.00	.038	.046	.121	.108	.090	.083	.060
	75.00	.033	.082	.099	.101	.083	.083	.059
	80.00	.065	.088	.107	.106	.086	.088	.057
85.00	.065	.100	.128	.123	.086	.089	.049	
90.00	.107	.149	.140	.133	.120	.088	.053	
95.00								



TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:											
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2					
UPPER SURFACE	M = 0.85    α = 11.3°													
	0.00	.170	-	.886	-	.990	-	.535	-	.730	-	.459	-	.457
	1.25	.450	-	1.468	-	1.135	-	.975	-	.658	-	.424	-	.359
	2.50	.614	-	1.446	-	1.090	-	.970	-	.654	-	.422	-	.360
	3.75	.735	-	1.483	-	1.108	-	.956	-	.650	-	.410	-	.359
	5.00	.769	-	1.476	-	1.080	-	.963	-	.642	-	.418	-	.353
	7.50	.749	-	1.440	-	1.054	-	.957	-	.636	-	.412	-	.351
	10.00	.723	-	1.350	-	.959	-	.944	-	.617	-	.404	-	.348
	15.00	.670	-	1.298	-	.862	-	.934	-	.599	-	.395	-	.345
	20.00	.641	-	1.216	-	.830	-	.927	-	.581	-	.377	-	.340
	25.00	.621	-	1.1975	-	.850	-	.913	-	.569	-	.377	-	.332
	30.00	.598	-	1.152	-	.855	-	.899	-	.556	-	.368	-	.328
	35.00	.588	-	1.103	-	.835	-	.875	-	.540	-	.361	-	.317
	40.00	.589	-	1.042	-	.808	-	.841	-	.524	-	.351	-	.306
	45.00	.582	-	1.067	-	.768	-	.795	-	.504	-	.346	-	.289
	50.00	.561	-	.001	-	.701	-	.738	-	.483	-	.340	-	.276
	55.00	.525	-	.009	-	.627	-	.622	-	.464	-	.334	-	.262
	60.00	.486	-	.132	-	.575	-	.619	-	.442	-	.328	-	.253
	65.00	.452	-	.159	-	.477	-	.581	-	.400	-	.321	-	.255
	70.00	.465	-	.741	-	.547	-	.491	-	.409	-	.307	-	.238
75.00	.791	-	.738	-	.533	-	.518	-	.426	-	.302	-	.232	
80.00	.651	-	.705	-	.454	-	.506	-	.428	-	.296	-	.230	
85.00	.554	-	.628	-	.383	-	.464	-	.407	-	.283	-	.230	
90.00	.463	-	.512	-	.311	-	.415	-	.369	-	.275	-	.224	
LOWER SURFACE	M = 0.85    α = 11.3°													
	1.25	.411	.568	.515	.522	.498	.489	.441						
	2.50	.484	.550	.509	.495	.489	.479	.402						
	3.75	.528	.491	.455	.466	.434	.409	.329						
	5.00	.551	.439	.410	.416	.366	.346	.259						
	7.50	.506	.407	.378	.369	.338	.337	.197						
	10.00	.461	.339	.318	.305	.288	.252	.099						
	15.00	.382	.292	.261	.251	.232	.193	.004						
	20.00	.355	.245	.223	.211	.188	.141	-.032						
	25.00	.302	.209	.185	.178	.166	.092	-.079						
	30.00	.248	.175	.156	.141	.113	.043	-.111						
	35.00	.227	.149	.130	.109	.078	.005	-.130						
	40.00	.191	.114	.092	.077	.041	-.038	-.142						
	45.00	.135	.085	.062	.048	.016	-.077	-.151						
	50.00	.133	.066	.047	.024	-.014	-.110	-.160						
	55.00	.100	.053	.027	.009	-.034	-.128	-.154						
	60.00	.088	.035	.007	-.008	-.054	-.146	-.152						
	65.00	.066	-.022	-.045	-.051	-.093	-.108	-.155						
	70.00	.022	-.007	-.029	-.042	-.114	-.134	-.149						
	75.00	.031	-.033	-.035	-.056	-.140	-.160	-.158						
80.00	.029	-.062	-.081	-.090	-.140	-.191	-.163							
85.00	.005	-.125	-.064	-.137	-.223	-.201	-.162							
90.00	.009	-.125	-.064	-.137	-.223	-.201	-.176							
UPPER SURFACE	M = 0.55    α = 15.5°													
	0.00	.055	1.282	1.085	.910	.559	.495	.491						
	1.25	.640	1.646	1.035	.766	.555	.484	.454						
	2.50	.862	1.612	1.009	.759	.560	.491	.449						
	3.75	1.040	1.617	1.043	.747	.565	.483	.450						
	5.00	1.065	1.621	1.042	.739	.569	.493	.446						
	7.50	1.040	1.598	1.048	.728	.571	.495	.435						
	10.00	1.010	1.483	1.038	.700	.573	.495	.429						
	15.00	.929	1.397	1.016	.688	.573	.492	.429						
	20.00	.866	1.314	.991	.675	.567	.479	.425						
	25.00	.805	1.257	.979	.664	.562	.485	.434						
	30.00	.737	1.182	.967	.646	.559	.477	.434						
	35.00	.628	1.082	.935	.630	.555	.473	.431						
	40.00	.579	.953	.898	.615	.548	.466	.427						
	45.00	.603	.800	.863	.607	.538	.462	.420						
	50.00	.544	.680	.827	.601	.527	.463	.411						
	55.00	.420	.644	.800	.544	.521	.476	.401						
	60.00	.318	.702	.820	.596	.526	.495	.403						
	65.00	.096	.525	.775	.557	.493	.479	.378						
	70.00	1.147	.844	.735	.552	.475	.410	.357						
75.00	.894	.814	.708	.565	.477	.421	.357							
80.00	.734	.591	.693	.573	.473	.418	.351							
85.00	.565	.457	.669	.560	.470	.406	.334							
90.00	.430	.371	.653	.553	.462	.387	.312							
LOWER SURFACE	M = 0.55    α = 15.5°													
	1.25	.331	.575	.500	.563	.469	.449	.420						
	2.50	.476	.614	.556	.541	.504	.488	.420						
	3.75	.599	.592	.539	.532	.475	.443	.374						
	5.00	.698	.546	.504	.491	.433	.392	.314						
	7.50	.650	.520	.472	.447	.395	.383	.255						
	10.00	.597	.449	.423	.393	.346	.302	.160						
	15.00	.512	.404	.365	.342	.293	.242	.074						
	20.00	.478	.358	.325	.295	.244	.191	.005						
	25.00	.484	.318	.284	.254	.199	.136	-.055						
	30.00	.382	.278	.248	.218	.154	.082	-.106						
	35.00	.340	.243	.209	.174	.113	.037	-.136						
	40.00	.298	.207	.175	.134	.072	-.014	-.155						
	45.00	.233	.174	.141	.095	.034	-.063	-.173						
	50.00	.233	.148	.116	.061	-.005	-.105	-.197						
	55.00	.193	.127	.091	.038	-.036	-.138	-.190						
	60.00	.178	.099	.060	-.004	-.066	-.174	-.213						
	65.00	.145	-.075	-.011	-.086	-.123	-.131	-.203						
	70.00	.087	-.045	-.021	-.090	-.153	-.171	-.233						
	75.00	.088	-.018	-.088	.127	-.189	-.218	-.288						
80.00	.033	-.015	.116	.181	-.187	-.279	-.327							
85.00	.007	-.062	.194	.244	-.287	-.386	-.444							

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $C_p$ , AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 0.90 \quad \alpha = 0.0^\circ$								
	.00	.451	.522	.484	.754	.480	.477	.372	
	1.25	.441	.071	.056	.001	.146	.203	.152	
	2.50	.147	.061	.045	.009	.055	.073	.101	
	5.00	.074	.061	.044	.009	.046	.092	.041	
	7.50	.034	.074	.046	.010	.020	.057	.022	
	10.00	.014	.084	.051	.005	.003	.042	.036	
	15.00	.022	.093	.049	.027	.007	.007	.077	
	20.00	.046	.096	.037	.018	.007	.012	.087	
	25.00	.070	.096	.026	.009	.015	.022	.071	
	30.00	.087	.081	.012	.004	.030	.022	.054	
	35.00	.087	.052	.011	.030	.051	.035	.044	
	40.00	.088	.003	.040	.058	.082	.058	.036	
	45.00	.086	.073	.085	.107	.124	.092	.055	
	50.00	.069	.170	.158	.170	.186	.148	.076	
	55.00	.012	.271	.251	.256	.270	.226	.089	
	60.00	.160	.280	.310	.348	.318	.257	.074	
	65.00	.359	.274	.314	.337	.320	.228	.068	
	70.00	.587	.233	.334	.353	.329	.230	.073	
75.00	1.159	.793	.385	.336	.284	.200	.077		
80.00	.592	.842	.420	.336	.281	.193	.087		
85.00	.495	.802	.432	.339	.281	.186	.109		
90.00	.322	.729	.439	.340	.285	.177	.117		
95.00	.218	.592	.426	.330	.286	.172	.115		
LOWER SURFACE	1.25	.400	.074	.125	.194	.325	.404	.503	
	2.50	.137	.056	.100	.168	.243	.301	.387	
	5.00	.095	.061	.104	.105	.220	.265	.298	
	7.50	.039	.074	.120	.137	.228	.268	.323	
	10.00	.014	.093	.131	.164	.233	.212	.335	
	15.00	.022	.116	.156	.217	.219	.250	.335	
	20.00	.072	.137	.181	.222	.237	.276	.307	
	25.00	.052	.158	.206	.241	.258	.297	.253	
	30.00	.112	.182	.227	.244	.258	.305	.235	
	35.00	.129	.199	.240	.256	.278	.316	.208	
	40.00	.143	.213	.259	.264	.290	.341	.217	
	45.00	.169	.245	.276	.272	.313	.327	.221	
	50.00	.178	.265	.286	.274	.316	.311	.212	
	55.00	.213	.262	.268	.282	.317	.271	.191	
	60.00	.229	.259	.243	.277	.295	.244	.169	
	65.00	.231	.230	.206	.265	.274	.201	.134	
	70.00	.238						.132	
	75.00	.245	.207	.212	.267	.247	.125	.119	
	80.00	.239	.184	.216	.247	.228	.132	.097	
85.00	.235	.147	.223	.226	.206	.128	.090		
90.00	.204	.117	.236	.234	.152	.128	.081		
95.00	.171	.117	.240	.237	.207	.131	.081		
$M = 0.90 \quad \alpha = 3.9^\circ$									
UPPER SURFACE	.00	.249	.175	.060	.309	.067	.063	.064	
	1.25	.017	.903	.039	.981	.998	.940	.899	
	2.50	.087	.794	.926	.860	.896	.882	.805	
	5.00	.160	.390	.509	.458	.415	.344	.371	
	7.50	.188	.355	.419	.346	.352	.308	.353	
	10.00	.214	.339	.368	.323	.327	.292	.321	
	15.00	.235	.323	.283	.283	.256	.240	.191	
	20.00	.241	.307	.217	.426	.207	.184	.142	
	25.00	.241	.298	.177	.185	.161	.138	.102	
	30.00	.247	.264	.147	.146	.116	.100	.082	
	35.00	.247	.183	.106	.100	.066	.054	.067	
	40.00	.246	.091	.060	.045	.016	.001	.052	
	45.00	.237	.015	.002	.019	.042	.052	.052	
	50.00	.194	.127	.073	.081	.107	.102	.052	
	55.00	.064	.192	.128	.138	.148	.137	.064	
	60.00	.070	.167	.145	.191	.172	.150	.060	
	65.00	.068	.014	.144	.181	.177	.140	.064	
	70.00	.067	.081	.163	.193		.134	.064	
	75.00	.082	.755	.430	.339	.269	.191	.063	
80.00	.082	.668	.433	.340	.269	.182	.062		
85.00	.086	.733	.442	.344	.269	.176	.069		
90.00	.454	.672	.449	.351	.271	.171	.070		
95.00	.306	.583	.436	.346	.264	.165	.065		
LOWER SURFACE	1.25	.337	.341	.349	.328	.332	.338	.283	
	2.50	.314	.270	.267	.249	.254	.255	.200	
	5.00	.260	.200	.186	.197	.166	.150	.111	
	7.50	.284	.148	.136	.142	.109	.097	.031	
	10.00	.188	.121	.104	.098	.071	.097	.027	
	15.00	.148	.073	.058	.037	.031	.011	.119	
	20.00	.093	.036	.023	.008	.036	.038	.154	
	25.00	.089	.004	.013	.038	.035	.081	.172	
	30.00	.035	.084	.051	.059	.079	.113	.180	
	35.00	.008	.056	.075	.088	.113	.153	.177	
	40.00	.011	.069	.099	.115	.127	.166	.179	
	45.00	.036	.100	.120	.139	.162	.217	.180	
	50.00	.047	.119	.137	.158	.175	.239	.170	
	55.00	.087	.123	.143	.178	.189	.234	.159	
	60.00	.104	.131	.142	.179	.200	.223	.128	
	65.00	.121	.134	.144	.184	.202	.204	.125	
	70.00	.113						.119	
	75.00	.131	.119	.124	.184	.202	.204	.095	
	80.00	.131	.119	.124	.184	.202	.204	.089	
85.00	.136	.123	.124	.184	.202	.204	.084		
90.00	.119	.124	.124	.184	.202	.204	.060		
95.00	.141	.169	.218	.219	.200	.133	.049		

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P_i$ AT:										
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2				
UPPER SURFACE	M = 0.90 $\alpha = 5.9^\circ$												
	0.00	.259	-	-	.189	-	.165	-	.440	-	.404	-	.345
	1.25	.085	-	1.206	-	1.086	-	1.130	-	.748	-	.877	
	2.50	.200	-	1.127	-	1.026	-	1.022	-	.622	-	.861	
	3.75	.283	-	.910	-	.919	-	.836	-	.576	-	.813	
	5.00	.310	-	.778	-	.788	-	.712	-	.560	-	.788	
	7.50	.303	-	.636	-	.657	-	.609	-	.526	-	.747	
	10.00	.315	-	.549	-	.560	-	.507	-	.466	-	.603	
	15.00	.309	-	.462	-	.383	-	.396	-	.396	-	.411	
	20.00	.329	-	.427	-	.266	-	.281	-	.324	-	.211	
	25.00	.344	-	.411	-	.202	-	.202	-	.262	-	.090	
	30.00	.344	-	.404	-	.158	-	.147	-	.207	-	.056	
	35.00	.333	-	.363	-	.119	-	.094	-	.152	-	.039	
	40.00	.334	-	.160	-	.072	-	.053	-	.098	-	.040	
	45.00	.342	-	.031	-	.017	-	.014	-	.046	-	.044	
	50.00	.339	-	.072	-	.036	-	.025	-	.004	-	.064	
	55.00	.135	-	.146	-	.060	-	.061	-	.023	-	.071	
	60.00	.025	-	.134	-	.055	-	.082	-	.008	-	.088	
65.00	.232	-	.021	-	.083	-	.134	-	.045	-	.098		
70.00	.434	-	.000	-	.437	-	.280	-	.209	-	.098		
75.00	1.066	-	.751	-	.444	-	.287	-	.207	-	.096		
80.00	.079	-	.768	-	.454	-	.294	-	.193	-	.092		
85.00	.594	-	.740	-	.459	-	.290	-	.172	-	.086		
90.00	.470	-	.677	-	.440	-	.273	-	.153	-	.075		
95.00	.332	-	.592	-	.440	-		-		-			
LOWER SURFACE	M = 0.90 $\alpha = 5.9^\circ$												
	1.25	.394	.452	.439	.417	.430	.442	.388					
	2.50	.396	.357	.362	.354	.362	.368	.307					
	3.75	.364	.300	.278	.293	.271	.260	.213					
	5.00	.323	.248	.224	.241	.214	.201	.131					
	7.50	.285	.216	.187	.191	.171	.197	.064					
	10.00	.242	.155	.137	.113	.123	.107	.036					
	15.00	.181	.115	.085	.076	.067	.048	.100					
	20.00	.173	.078	.047	.030	.027	.004	.153					
	25.00	.115	.046	.016	.006	.005	.036	.164					
	30.00	.083	.016	.011	.027	.038	.079	.166					
	35.00	.062	.007	.039	.059	.064	.117	.162					
	40.00	.031	.037	.062	.086	.100	.155	.161					
	45.00	.001	.058	.084	.111	.117	.182	.156					
	50.00	.022	.067	.096	.128	.138	.194	.145					
	55.00	.042	.074	.101	.140	.147	.191	.130					
	60.00	.053	.085	.107	.144	.150	.171	.107					
	65.00	.055						.102					
70.00	.076	.078	.143	.171	.162	.116	.085						
75.00	.073	.089	.153	.162	.162	.104	.077						
80.00	.093	.102	.165	.163	.161	.107	.070						
85.00	.091	.115	.194	.185	.124	.111	.055						
90.00	.125	.171	.211	.205	.178	.105	.047						
95.00													
UPPER SURFACE	M = 0.90 $\alpha = 8.0^\circ$												
	0.00	.267	.340	.401	.031	.689	.765	.683					
	1.25	.193	1.165	1.146	1.172	.904	.837	.774					
	2.50	.319	1.176	1.001	1.111	.868	.837	.764					
	3.75	.420	1.109	.989	1.000	.836	.720	.751					
	5.00	.452	1.003	.830	.909	.808	.702	.748					
	7.50	.441	.926	.793	.843	.780	.692	.738					
	10.00	.441	.778	.688	.755	.723	.662	.701					
	15.00	.416	.637	.592	.682	.602	.628	.643					
	20.00	.426	.538	.516	.652	.508	.587	.537					
	25.00	.426	.494	.431	.600	.445	.534	.453					
	30.00	.423	.481	.358	.523	.403	.514	.354					
	35.00	.419	.335	.294	.418	.361	.445	.281					
	40.00	.420	.106	.245	.293	.326	.361	.221					
	45.00	.433	.012	.207	.184	.287	.281	.210					
	50.00	.268	.111	.175	.108	.255	.208	.201					
	55.00	.068	.114	.171	.026	.221	.152	.193					
	60.00	.152	.034	.101	.063	.177	.132	.190					
65.00	.370	.006	.118	.004	.356	.061	.185						
70.00	1.061	.774	.471	.362	.340	.248	.172						
75.00	.686	.776	.808	.374	.341	.243	.158						
80.00	.609	.753	.482	.363	.310	.201	.148						
85.00	.000	.688	.448	.333	.248	.171	.135						
90.00	.421	.602	.409	.302	.244	.146							
95.00													
LOWER SURFACE	M = 0.90 $\alpha = 8.0^\circ$												
	1.25	.422	.521	.490	.476	.470	.468	.433					
	2.50	.453	.454	.428	.400	.418	.420	.371					
	3.75	.438	.385	.381	.360	.337	.323	.287					
	5.00	.413	.329	.298	.308	.279	.265	.204					
	7.50	.371	.297	.260	.257	.235	.229	.143					
	10.00	.326	.234	.203	.185	.183	.170	.046					
	15.00	.258	.184	.150	.139	.127	.108	.017					
	20.00	.242	.143	.109	.098	.085	.059	.091					
	25.00	.180	.110	.076	.068	.052	.022	.123					
	30.00	.142	.077	.043	.030	.017	.024	.137					
	35.00	.119	.050	.016	.000	.013	.063	.154					
	40.00	.089	.007	.011	.012	.047	.098	.143					
	45.00	.053	.007	.038	.052	.067	.131	.133					
	50.00	.025	.019	.051	.078	.089	.150	.128					
	55.00	.008	.033	.082	.089	.100	.154	.107					
	60.00	.009	.043	.074	.101	.108	.150	.092					
	65.00	.012						.089					
70.00	.036	.043	.135	.123	.118	.106	.067						
75.00	.036	.068	.126	.119	.122	.102	.067						
80.00	.060	.088	.137	.120	.122	.099	.065						
85.00	.065	.112	.159	.137	.087	.101	.057						
90.00	.113	.175	.173	.159	.140	.099	.065						
95.00													

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135h/2	0.25h/2	0.40h/2	0.55h/2	0.70h/2	0.85h/2	0.95h/2
UPPER SURFACE	M = 0.90    α = 11.3°								
	.00	.214	-.694	-.777	-.352	-.917	-.548	-.468	
	1.25	.344	1.388	1.288	1.209	.840	-.804	-.380	
	2.50	.497	1.311	1.113	1.193	.834	-.805	-.377	
	5.00	.619	1.346	1.088	1.168	.825	-.801	-.374	
	7.50	.689	1.328	1.039	1.189	.820	-.804	-.378	
	10.00	.648	1.275	1.010	1.208	.818	-.807	-.371	
	12.50	.640	1.180	.948	1.149	.812	-.804	-.370	
	15.00	.601	1.128	.885	1.108	.804	-.804	-.368	
	17.50	.578	1.041	.825	1.079	.794	-.802	-.365	
	20.00	.543	.951	.765	1.039	.784	-.804	-.364	
	22.50	.508	.851	.704	1.000	.777	-.808	-.361	
	25.00	.468	.751	.647	.957	.759	-.830	-.356	
	27.50	.423	.651	.587	.917	.739	-.848	-.350	
	30.00	.378	.551	.524	.878	.706	-.868	-.343	
	32.50	.333	.451	.464	.841	.668	-.893	-.339	
	35.00	.288	.351	.404	.805	.618	-.923	-.339	
	37.50	.243	.251	.344	.773	.568	-.958	-.332	
	40.00	.198	.151	.284	.745	.540	-.984	-.328	
LOWER SURFACE	.00	.201	-.184	-.802	-.318	-.919	-.544	-.473	
	1.25	.103	.797	-.864	-.367	-.898	-.562	-.465	
	2.50	.010	.794	-.810	-.379	-.819	-.562	-.459	
	5.00	.034	.766	-.750	-.386	-.687	-.540	-.456	
	7.50	.059	.710	-.684	-.381	-.544	-.508	-.452	
	10.00	.085	.617	-.615	-.377	-.410	-.478	-.440	
	12.50	.112	.488	-.530	-.368	-.290	-.440	-.414	
	15.00	.140	.351	-.441	-.353	-.219	-.408	-.386	
	17.50	.169	.214	-.344	-.340	-.148	-.388	-.361	
	20.00	.198	.077	-.247	-.329	.002	-.368	-.339	
	22.50	.227	-.062	-.150	-.318	.072	-.348	-.319	
	25.00	.256	-.147	-.053	-.308	.142	-.328	-.299	
	27.50	.285	-.232	.044	-.298	.212	-.308	-.279	
	30.00	.314	-.317	.139	-.288	.282	-.288	-.259	
	32.50	.343	-.402	.234	-.278	.352	-.268	-.239	
	35.00	.372	-.487	.329	-.268	.422	-.248	-.219	
	37.50	.401	-.572	.424	-.258	.492	-.228	-.199	
	40.00	.430	-.657	.519	-.248	.562	-.208	-.179	
	UPPER SURFACE	M = 0.90    α = 15.5°							
.00		.119	1.063	1.117	.818	.545	.510	.510	
1.25		.494	1.478	1.082	.776	.545	.508	.467	
2.50		.708	1.447	1.027	.777	.531	.511	.465	
5.00		.880	1.488	1.043	.770	.526	.508	.467	
7.50		.914	1.477	1.026	.768	.528	.511	.470	
10.00		.891	1.426	1.011	.761	.523	.509	.468	
12.50		.876	1.381	.993	.744	.517	.511	.464	
15.00		.817	1.300	.970	.728	.510	.511	.453	
17.50		.713	1.199	.950	.715	.503	.508	.448	
20.00		.589	1.079	.930	.700	.498	.504	.438	
22.50		.472	.951	.918	.678	.498	.504	.427	
25.00		.364	.824	.909	.657	.498	.508	.424	
27.50		.256	.700	.899	.636	.498	.508	.424	
30.00		.148	.577	.888	.614	.498	.508	.424	
32.50		.040	.451	.878	.593	.498	.508	.424	
35.00		-.068	.324	.868	.573	.498	.508	.424	
37.50		-.176	.197	.858	.553	.498	.508	.424	
40.00		-.284	.070	.848	.533	.498	.508	.424	
LOWER SURFACE	.00	.356	.617	.530	.573	.484	.456	.428	
	1.25	.519	.642	.574	.543	.454	.426	.393	
	2.50	.682	.611	.618	.513	.424	.402	.368	
	5.00	.845	.571	.668	.481	.402	.391	.358	
	7.50	.909	.530	.718	.451	.386	.381	.348	
	10.00	.973	.489	.768	.421	.370	.365	.332	
	12.50	.938	.448	.818	.391	.354	.349	.316	
	15.00	.897	.407	.868	.361	.338	.333	.300	
	17.50	.856	.366	.918	.331	.316	.311	.278	
	20.00	.815	.325	.968	.301	.290	.285	.252	
	22.50	.774	.284	.1000	.271	.260	.255	.222	
	25.00	.733	.243	.1000	.241	.230	.225	.192	
	27.50	.692	.202	.1000	.211	.200	.195	.162	
	30.00	.651	.161	.1000	.181	.170	.165	.132	
	32.50	.610	.120	.1000	.151	.140	.135	.102	
	35.00	.569	.079	.1000	.121	.110	.105	.072	
	37.50	.528	.038	.1000	.091	.080	.075	.042	
	40.00	.487	-.003	.1000	.061	.050	.045	.012	
	42.50	.446	-.044	.1000	.031	.020	.015	-.018	

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.94    α = 0.0°								
	.00	.291	.536	.489	.779	.479	.471	.378	
	1.25	.241	.060	.068	.014	.116	.180	.145	
	2.50	.170	.047	.049	.019	.026	.050	.100	
	5.00	.096	.051	.048	.018	.018	.072	.042	
	7.50	.053	.064	.047	.003	.009	.037	.023	
	10.00	.036	.076	.054	.010	.026	.025	.041	
	15.00	.007	.086	.045	.036	.023	.009	.100	
	20.00	.037	.095	.029	.029	.020	.000	.146	
	25.00	.080	.101	.015	.023	.008	.007	.107	
	30.00	.079	.086	.002	.009	.011	.009	.083	
	35.00	.080	.048	.019	.013	.028	.020	.053	
	40.00	.089	.016	.046	.040	.067	.037	.056	
	45.00	.083	.098	.088	.087	.112	.074	.078	
	50.00	.066	.196	.156	.152	.177	.135	.106	
	55.00	.025	.295	.248	.248	.262	.211	.127	
	60.00	.187	.295	.302	.337	.308	.241	.103	
	65.00	.375	.297	.323	.330	.311	.216	.088	
70.00	.604	.248	.424	.346	.323	.216	.093		
75.00	1.192	.852	.462	.368	.309	.225	.096		
80.00	.648	.895	.465	.369	.305	.221	.109		
85.00	.519	.849	.468	.367	.306	.214	.131		
90.00	.397	.781	.468	.367	.310	.205	.136		
95.00	.318	.650	.486	.360	.317	.198	.135		
LOWER SURFACE	M = 0.94    α = 3.9°								
	1.25	.218	.054	.100	.171	.320	.412	.535	
	2.50	.161	.034	.079	.153	.240	.319	.409	
	5.00	.110	.038	.084	.096	.231	.289	.315	
	7.50	.059	.059	.105	.134	.247	.291	.342	
	10.00	.035	.072	.116	.160	.261	.240	.334	
	15.00	.000	.104	.147	.214	.253	.297	.355	
	20.00	.052	.125	.172	.237	.277	.325	.374	
	25.00	.035	.144	.197	.262	.309	.350	.381	
	30.00	.095	.166	.224	.269	.322	.362	.349	
	35.00	.108	.184	.247	.295	.343	.378	.298	
	40.00	.126	.200	.271	.320	.365	.384	.293	
	45.00	.151	.231	.297	.352	.399	.382	.283	
	50.00	.170	.258	.319	.373	.409	.395	.266	
	55.00	.202	.267	.329	.383	.389	.392	.206	
	60.00	.220	.269	.329	.370	.342	.392	.162	
	65.00	.229	.264	.314	.324	.309	.286	.129	
	70.00	.237						.127	
75.00	.253	.276	.262	.308	.300	.127	.121		
80.00	.260	.279	.251	.292	.281	.117	.107		
85.00	.275	.252	.254	.270	.278	.119	.103		
90.00	.275	.197	.278	.262	.229	.135	.091		
95.00	.269	.162	.290	.268	.276	.148	.095		
UPPER SURFACE	M = 0.94    α = 3.9°								
	.00	.277	.235	.115	.352	.011	.028	.078	
	1.25	.054	.850	.973	.847	.915	.907	.970	
	2.50	.043	.793	.893	.705	.854	.882	.889	
	5.00	.125	.352	.544	.497	.503	.560	.543	
	7.50	.160	.334	.430	.393	.383	.367	.434	
	10.00	.161	.325	.413	.379	.354	.329	.339	
	15.00	.188	.305	.391	.322	.276	.277	.296	
	20.00	.200	.302	.301	.235	.234	.216	.174	
	25.00	.230	.306	.250	.201	.202	.174	.109	
	30.00	.239	.308	.193	.158	.147	.130	.092	
	35.00	.234	.304	.081	.119	.098	.077	.080	
	40.00	.233	.304	.044	.072	.041	.025	.073	
	45.00	.233	.304	.010	.012	.021	.040	.075	
	50.00	.248	.269	.081	.055	.092	.095	.087	
	55.00	.273	.212	.127	.117	.132	.127	.102	
	60.00	.280	.168	.142	.177	.156	.139	.092	
	65.00	.286	.135	.136	.163	.160	.129	.094	
70.00	.473	.024	.154	.173	.175	.119	.090		
75.00	.218	.863	.497	.386	.283	.210	.087		
80.00	.717	.908	.495	.382	.283	.206	.085		
85.00	.688	.854	.486	.383	.283	.203	.085		
90.00	.527	.768	.481	.383	.283	.197	.087		
95.00	.395	.660	.469	.376	.286	.191	.076		
LOWER SURFACE	M = 0.94    α = 3.9°								
	1.25	.347	.342	.338	.323	.323	.331	.280	
	2.50	.326	.273	.258	.246	.248	.251	.199	
	5.00	.279	.204	.179	.188	.160	.140	.112	
	7.50	.235	.156	.130	.135	.104	.089	.036	
	10.00	.200	.128	.098	.090	.066	.090	.020	
	15.00	.153	.080	.052	.028	.030	.004	.124	
	20.00	.102	.043	.007	.011	.025	.050	.085	
	25.00	.100	.007	.032	.048	.059	.093	.108	
	30.00	.042	.022	.060	.070	.091	.127	.173	
	35.00	.016	.050	.085	.100	.118	.164	.262	
	40.00	.002	.072	.113	.124	.151	.204	.245	
	45.00	.034	.104	.134	.147	.185	.239	.225	
	50.00	.063	.128	.154	.170	.215	.230	.189	
	55.00	.086	.135	.161	.187	.235	.247	.156	
	60.00	.107	.144	.185	.199	.247	.247	.130	
	65.00	.127	.147	.148	.216	.247	.247	.122	
	70.00	.119						.107	
75.00	.144	.136	.155	.253	.239	.145	.099		
80.00	.142	.137	.179	.251	.229	.130	.099		
85.00	.161	.125	.204	.253	.238	.133	.090		
90.00	.141	.100	.243	.256	.204	.143	.066		
95.00	.174	.122	.282	.258	.265	.142	.053		

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
$M = 0.94 \quad \alpha = 5.9^\circ$							
UPPER SURFACE	.00	.289	.014	-.096	-.253	-.361	-.381
	1.25	.028	.997	-.180	-.155	-.176	-.013
	2.50	.139	.013	-.137	-.183	-.176	.947
	5.00	.229	.697	-.091	-.117	-.103	.834
	7.50	.263	.542	-.002	-.065	-.031	.759
	10.00	.260	.476	-.864	-.013	-.906	.665
	15.00	.276	.417	-.484	-.668	-.468	.496
	20.00	.273	.398	-.441	-.266	-.317	.472
	25.00	.291	.391	-.366	-.197	-.257	.318
	30.00	.300	.388	-.179	-.148	-.203	.257
	35.00	.305	.392	-.111	-.118	-.153	.197
	40.00	.313	.327	-.062	-.081	-.093	.137
	45.00	.326	.054	-.011	-.027	-.041	.080
	50.00	.361	.083	-.043	-.037	-.017	.023
	55.00	.211	.144	-.086	.107	.071	.025
	60.00	.036	.117	-.106	.183	.116	.055
	65.00	.187	.079	.129	.178	.142	.054
	70.00	.410	.004	.510	.188	.152	.068
LOWER SURFACE	.00	.185	.839	-.395	-.395	-.283	-.218
	1.25	.689	.876	-.510	-.393	-.284	-.221
	2.50	.641	.837	-.503	-.390	-.286	-.218
	5.00	.529	.758	-.498	-.387	-.289	-.206
	7.50	.397	.653	-.488	-.378	-.286	-.189
	10.00	.406	.458	-.437	-.412	-.426	-.431
	15.00	.409	.384	-.359	-.316	-.356	-.358
	20.00	.371	.311	-.279	-.284	-.265	-.249
	25.00	.337	.259	-.224	-.236	-.210	-.194
	30.00	.300	.227	-.188	-.185	-.168	-.186
	35.00	.257	.166	-.144	-.114	-.122	-.096
	40.00	.193	.156	-.086	-.073	-.066	-.038
	45.00	.182	.083	-.049	-.031	-.025	-.009
	50.00	.185	.053	-.015	-.010	-.012	.050
	55.00	.091	.024	-.013	-.024	-.046	.093
	60.00	.068	.000	-.038	-.053	-.083	.135
	65.00	.036	.030	-.064	-.081	-.115	.181
	70.00	.006	.057	-.086	-.108	-.146	.287
	75.00	.014	.070	-.096	-.128	-.172	.257
UPPER SURFACE	.00	.037	.079	-.098	-.145	-.184	-.255
	1.25	.059	.086	-.100	-.164	-.189	-.311
	2.50	.054					
	5.00	.078	.078	-.130	-.203	-.199	-.173
	7.50	.077	.085	-.149	-.205	-.208	-.171
	10.00	.098	.082	-.171	-.214	-.218	-.148
	15.00	.091	.085	-.219	-.224	-.192	-.115
	20.00	.129	.119	-.257	-.241	-.253	-.125
	25.00	.286	.211	-.280	-.121	-.585	-.612
	30.00	.130	.096	-.244	-.268	-.129	-.725
	35.00	.242	.101	-.191	-.316	-.129	-.690
	40.00	.146	.032	-.157	-.261	-.146	-.657
	45.00	.382	.887	-.031	-.125	-.181	-.640
	50.00	.377	.802	.934	-.178	-.077	-.609
	55.00	.385	.665	.773	-.064	-.838	-.572
	60.00	.367	.558	.614	.720	-.638	-.538
	65.00	.379	.494	.464	.552	-.628	-.506
	70.00	.375	.454	.382	.464	-.561	-.497
	75.00	.381	.467	.243	.349	-.489	-.479
	80.00	.389	.176	.200	.233	-.414	-.459
LOWER SURFACE	.00	.432	.013	-.158	-.079	-.285	-.418
	1.25	.310	.105	-.133	-.028	-.232	-.397
	2.50	.130	.102	-.133	-.059	-.194	-.367
	5.00	.111	.103	-.146	-.065	-.178	-.328
	7.50	.355	.007	-.098	-.104	-.132	-.267
	10.00	.166	.253	-.535	-.430	-.332	-.311
	15.00	.714	.880	-.548	-.427	-.346	-.301
	20.00	.567	.884	-.534	-.427	-.334	-.261
	25.00	.456	.788	-.511	-.415	-.312	-.226
	30.00	.431	.677	-.487	-.397	-.281	-.194
	35.00	.436	.528	-.488	-.451	-.454	-.455
	40.00	.472	.463	-.485	-.376	-.398	-.400
	45.00	.449	.389	-.445	-.345	-.316	-.303
	50.00	.424	.335	-.289	-.289	-.237	-.242
	55.00	.383	.299	-.256	-.244	-.216	-.242
	60.00	.338	.237	-.202	-.171	-.162	-.148
	65.00	.270	.191	-.146	-.127	-.109	-.090
	70.00	.254	.130	-.186	-.085	-.064	-.038
	75.00	.193	.115	-.070	-.056	-.027	-.003
	80.00	.153	.082	-.010	-.020	-.006	-.050
UPPER SURFACE	.00	.095	.050	-.017	-.014	-.043	-.088
	1.25	.061	.007	-.041	-.079	-.106	-.166
	2.50	.037	.001	-.056	-.098	-.140	-.224
	5.00	.010	.034	-.064	-.120	-.148	-.253
	7.50	.006	.048	-.074	-.135	-.150	-.275
	10.00	.006					
	15.00	.037	.043	-.130	-.179	-.174	-.144
	20.00	.034	.089	-.145	-.182	-.193	-.154
	25.00	.058	.074	-.167	-.186	-.203	-.133
	30.00	.060	.090	-.208	-.194	-.178	-.095
	35.00	.103	.145	-.242	-.218	-.228	-.099
	40.00	.528	.211	-.280	-.121	-.585	-.612
	45.00	.130	.096	-.244	-.268	-.129	-.725
	50.00	.242	.101	-.191	-.316	-.129	-.690
	55.00	.146	.032	-.157	-.261	-.146	-.657
	60.00	.382	.887	-.031	-.125	-.181	-.640
	65.00	.377	.802	.934	-.178	-.077	-.609
	70.00	.385	.665	.773	-.064	-.838	-.572
	75.00	.367	.558	.614	.720	-.638	-.538
	80.00	.379	.494	.464	.552	-.628	-.506
	85.00	.375	.454	.382	.464	-.561	-.497
	90.00	.381	.467	.243	.349	-.489	-.479
	95.00	.389	.176	.200	.233	-.414	-.459
LOWER SURFACE	.00	.432	.013	-.158	-.079	-.285	-.418
	1.25	.310	.105	-.133	-.028	-.232	-.397
	2.50	.130	.102	-.133	-.059	-.194	-.367
	5.00	.111	.103	-.146	-.065	-.178	-.328
	7.50	.355	.007	-.098	-.104	-.132	-.267
	10.00	.166	.253	-.548	-.430	-.332	-.311
	15.00	.714	.880	-.548	-.427	-.346	-.301
	20.00	.567	.884	-.534	-.427	-.334	-.261
	25.00	.456	.788	-.511	-.415	-.312	-.226
	30.00	.431	.677	-.487	-.397	-.281	-.194
	35.00	.436	.528	-.488	-.451	-.454	-.455
	40.00	.472	.463	-.485	-.376	-.398	-.400
	45.00	.449	.389	-.445	-.345	-.316	-.303
	50.00	.424	.335	-.289	-.289	-.237	-.242
	55.00	.383	.299	-.256	-.244	-.216	-.242
	60.00	.338	.237	-.202	-.171	-.162	-.148
	65.00	.270	.191	-.146	-.127	-.109	-.090
	70.00	.254	.130	-.186	-.085	-.064	-.038
	75.00	.193	.115	-.070	-.056	-.027	-.003
	80.00	.153	.082	-.010	-.020	-.006	-.050
	85.00	.095	.050	-.017	-.014	-.043	-.088
	90.00	.061	.007	-.041	-.079	-.106	-.166
	95.00	.037	.001	-.056	-.098	-.140	-.224

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 0.94 \quad \alpha = 11.3^\circ$							
	0.00	.243	-.563	-.625	-.181	-.878	-.738	-.521
	1.25	.258	1.210	1.224	1.350	1.094	.672	-.444
	2.50	.406	1.197	1.101	1.357	1.094	.675	-.437
	5.00	.528	1.228	1.046	1.319	1.075	.653	-.445
	7.50	.571	1.201	.986	1.279	1.060	.656	-.438
	10.00	.562	1.146	.951	1.229	1.046	.643	-.426
	15.00	.569	1.049	.893	1.069	1.021	.622	-.418
	20.00	.530	.936	.814	.944	.992	.593	-.410
	25.00	.513	.918	.719	.912	.967	.563	-.401
	30.00	.503	.798	.632	.873	.937	.558	-.400
	35.00	.491	.624	.561	.840	.908	.544	-.397
	40.00	.482	.504	.505	.806	.875	.525	-.391
	45.00	.490	.432	.529	.757	.844	.504	-.387
	50.00	.522	.057	.597	.685	.808	.487	-.380
	55.00	.421	.033	.628	.575	.766	.465	-.374
	60.00	.271	.055	.635	.407	.706	.451	-.363
	65.00	.113	.025	.669	.403	.656	.449	-.367
70.00	.208	.081	.579	.351	.361	.421	-.337	
75.00	1.121	.922	.733	.462	.547	.413	-.335	
80.00	.634	.453	.633	.469	.569	.416	-.324	
85.00	.537	.410	.554	.435	.530	.411	-.323	
90.00	.510	.436	.516	.397	.475	.398	-.317	
95.00	.472	.731	-.477	.361	.428	.382	-.308	
LOWER SURFACE	1.25	.426	.607	.546	.552	.488	.478	-.456
	2.50	.537	.573	.518	.483	.470	.465	-.415
	5.00	.646	.509	.459	.451	.408	.391	-.343
	7.50	.537	.457	.411	.395	.356	.330	-.276
	10.00	.537	.422	.375	.344	.310	.322	-.211
	15.00	.464	.351	.318	.283	.259	.238	-.114
	20.00	.408	.308	.264	.238	.203	.177	-.021
	25.00	.361	.263	.222	.192	.157	.125	-.050
	30.00	.324	.225	.184	.155	.119	.079	-.117
	35.00	.268	.185	.153	.117	.078	.030	-.162
	40.00	.249	.159	.135	.077	.044	.012	-.191
	45.00	.209	.121	.087	.043	.004	.062	-.212
	50.00	.154	.060	.056	.011	.024	.108	-.238
	55.00	.147	.071	.037	.020	.053	.147	-.242
	60.00	.110	.052	.017	.046	.073	.180	-.238
	65.00	.096	.036	.009	.072	.092	.207	-.252
	70.00	.075						-.249
	75.00	.024	.026	.093	.131	.126	.137	-.237
80.00	.035	.001	.082	.115	.146	.180	-.264	
85.00	.032	.002	.123	.125	.157	.226	-.257	
90.00	.008	.057	.160	.157	.135	.287	-.249	
95.00	.000	.130	.202	.198	.203	.299	-.249	
$M = 0.94 \quad \alpha = 15.6^\circ$								
UPPER SURFACE	0.00	.160	-.925	1.042	.741	.615	.546	-.556
	1.25	.406	1.344	1.231	.741	.596	.540	-.527
	2.50	.608	1.322	1.182	.737	.604	.547	-.519
	5.00	.777	1.344	1.162	.725	.605	.539	-.514
	7.50	.818	1.351	1.142	.717	.609	.533	-.516
	10.00	.800	1.359	1.131	.718	.614	.533	-.516
	15.00	.788	1.265	1.031	.712	.618	.531	-.516
	20.00	.735	1.258	1.101	.727	.617	.551	-.517
	25.00	.689	1.237	1.101	.740	.617	.551	-.517
	30.00	.653	1.213	1.112	.740	.617	.563	-.520
	35.00	.624	1.202	1.071	.738	.617	.564	-.526
	40.00	.608	1.102	1.014	.727	.614	.561	-.525
	45.00	.608	.729	.960	.713	.610	.561	-.520
	50.00	.636	.243	.923	.700	.604	.556	-.516
	55.00	.546	.094	.895	.683	.592	.557	-.505
	60.00	.431	.085	.848	.604	.564	.570	-.497
	65.00	.307	.327	.838	.668	.584	.583	-.496
	70.00	.097	.102	.780	.626	.561	.573	-.004
75.00	1.102	.922	.791	.637	.561	.507	-.479	
80.00	.859	.950	.748	.642	.564	.522	-.462	
85.00	.637	.898	.723	.643	.556	.522	-.447	
90.00	.568	.788	.704	.635	.553	.514	-.434	
95.00	.465	.617	.684	.626	.550	.495	-.413	
LOWER SURFACE	1.25	.372	.645	.550	.587	.493	.464	-.435
	2.50	.546	.667	.567	.558	.522	.501	-.441
	5.00	.688	.635	.558	.545	.490	.456	-.403
	7.50	.743	.592	.584	.501	.450	.411	-.343
	10.00	.690	.559	.495	.461	.412	.402	-.286
	15.00	.638	.494	.442	.403	.365	.324	-.190
	20.00	.555	.446	.385	.351	.314	.266	-.091
	25.00	.517	.399	.343	.309	.264	.212	-.015
	30.00	.463	.359	.305	.271	.223	.164	-.053
	35.00	.402	.322	.289	.233	.184	.113	-.115
	40.00	.377	.286	.233	.193	.144	.066	-.159
	45.00	.337	.246	.193	.153	.101	.014	-.192
	50.00	.278	.219	.167	.118	.067	.043	-.228
	55.00	.271	.195	.141	.084	.023	.090	-.254
	60.00	.234	.171	.114	.056	.001	.131	-.265
	65.00	.216	.152	.085	.028	.027	.171	-.287
	70.00	.184						-.301
	75.00	.122	.127	.011	.053	.093	.166	-.316
80.00	.128	.087	.003	.057	.126	.210	-.340	
85.00	.126	.050	.003	.090	.163	.265	-.360	
90.00	.068	.014	.071	.139	.167	.338	-.377	
95.00	.044	.051	.129	.211	.276	.379	-.373	

CONFIDENTIAL

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
<b>M = 0.98    <math>\alpha = -0.1^\circ</math></b>								
UPPER SURFACE	.00	.344	.561	.507	.803	.494	.486	.430
	1.25	.270	.034	.064	.010	.121	.145	.108
	2.50	.201	.016	.039	.003	.034	.032	.078
	5.00	.128	.019	.033	.010	.028	.053	.028
	7.50	.072	.030	.029	.032	.000	.018	.008
	10.00	.024	.054	.031	.016	.020	.006	.037
	12.50	.006	.081	.028	.012	.020	.032	.091
	15.00	.003	.097	.033	.007	.020	.013	.164
	17.50	.000	.077	.034	.004	.011	.007	.123
	20.00	.000	.058	.033	.005	.002	.006	.075
	22.50	.000	.037	.033	.025	.051	.019	.093
	25.00	.000	.016	.078	.048	.097	.046	.139
	27.50	.000	.000	.115	.090	.159	.101	.207
	30.00	.000	.000	.152	.152	.249	.185	.215
	32.50	.000	.000	.184	.240	.303	.213	.193
	35.00	.000	.000	.211	.339	.308	.210	.188
	37.50	.000	.000	.237	.338	.323	.237	.173
	40.00	.000	.000	.267	.345	.407	.319	.187
LOWER SURFACE	.00	.343	.644	.592	.456	.403	.278	.219
	1.25	.246	.022	.057	.122	.257	.321	.410
	2.50	.192	.006	.040	.110	.186	.246	.307
	5.00	.143	.010	.050	.095	.188	.243	.277
	7.50	.090	.029	.072	.120	.205	.249	.292
	10.00	.064	.043	.082	.171	.217	.257	.294
	12.50	.027	.071	.108	.197	.243	.287	.332
	15.00	.000	.094	.136	.226	.276	.313	.369
	17.50	.000	.108	.161	.235	.287	.330	.339
	20.00	.000	.134	.183	.264	.309	.351	.361
	22.50	.000	.156	.206	.288	.335	.375	.389
	25.00	.000	.168	.233	.314	.371	.406	.401
	27.50	.000	.191	.259	.345	.382	.435	.426
	30.00	.000	.213	.282	.354	.405	.467	.414
	32.50	.000	.235	.290	.354	.411	.453	.313
	35.00	.000	.246	.285	.336	.366	.413	.316
	37.50	.000	.237	.295	.311	.344	.337	.308
	40.00	.000	.230	.259	.286	.333	.324	.254
UPPER SURFACE	.00	.324	.297	.179	.417	.058	.048	.127
	1.25	.104	.776	.905	.884	.793	.833	.905
	2.50	.009	.718	.831	.938	.737	.852	.849
	5.00	.070	.294	.398	.846	.607	.645	.679
	7.50	.109	.286	.346	.628	.352	.358	.491
	10.00	.110	.274	.346	.300	.386	.382	.315
	12.50	.113	.265	.340	.135	.280	.289	.278
	15.00	.151	.264	.300	.115	.181	.212	.261
	17.50	.182	.264	.264	.110	.136	.165	.178
	20.00	.199	.264	.200	.110	.136	.135	.126
	22.50	.196	.264	.083	.084	.086	.094	.111
	25.00	.209	.264	.011	.041	.036	.053	.100
	27.50	.228	.264	.089	.019	.025	.000	.112
	30.00	.268	.264	.116	.088	.086	.065	.143
	32.50	.268	.264	.120	.147	.136	.127	.189
	35.00	.268	.264	.152	.177	.166	.153	.209
	37.50	.268	.264	.160	.200	.173	.158	.226
	40.00	.268	.264	.155	.180	.166	.158	.218
LOWER SURFACE	.00	.384	.633	.603	.477	.391	.288	.213
	1.25	.370	.362	.347	.321	.333	.337	.299
	2.50	.357	.295	.273	.244	.261	.262	.244
	5.00	.283	.228	.196	.196	.168	.155	.144
	7.50	.267	.180	.147	.142	.112	.107	.074
	10.00	.235	.152	.113	.100	.071	.113	.019
	12.50	.193	.107	.071	.036	.041	.027	.077
	15.00	.134	.069	.081	.000	.016	.020	.160
	17.50	.134	.036	.018	.036	.072	.058	.258
	20.00	.076	.004	.047	.098	.086	.135	.297
	22.50	.046	.000	.074	.128	.108	.115	.315
	25.00	.027	.048	.100	.149	.149	.149	.330
	27.50	.004	.082	.130	.163	.178	.178	.347
	30.00	.000	.110	.153	.164	.202	.202	.331
	32.50	.035	.119	.160	.143	.220	.220	.327
	35.00	.056	.129	.168	.154	.229	.229	.322
	37.50	.077	.138	.159	.154	.229	.229	.316
	40.00	.101	.107	.122	.200	.250	.295	.313
	42.50	.121	.138	.127	.206	.256	.311	.289
	45.00	.145	.145	.127	.223	.283	.335	.289
	47.50	.158	.158	.127	.252	.328	.364	.289
	50.00	.173	.173	.127	.292	.368	.343	.197



TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.98 $\alpha = 5.9^\circ$								
UPPER SURFACE	.00	.319	.094	.010	.326	.251	.301	.217
	1.25	.083	.060	1.071	1.050	1.070	1.042	1.112
	2.50	.082	.045	1.041	1.102	1.100	1.127	1.106
	5.00	.174	.055	1.004	1.037	1.038	1.033	1.090
	7.50	.210	.045	.923	.985	.994	.996	.974
	10.00	.210	.409	.854	.943	.960	.952	.946
	15.00	.234	.367	.439	.867	.795	.582	.496
	20.00	.229	.355	.391	.341	.353	.288	.267
	25.00	.250	.353	.404	.180	.167	.235	.186
	30.00	.258	.351	.202	.139	.139	.203	.163
	35.00	.263	.359	.095	.104	.100	.158	.150
	40.00	.270	.354	.044	.062	.062	.111	.138
	45.00	.285	.062	.009	.007	.017	.051	.147
	50.00	.327	.096	.070	.060	.035	.002	.172
	55.00	.211	.134	.110	.129	.091	.046	.214
	60.00	.045	.118	.126	.127	.137	.084	.235
	65.00	.188	.129	.121	.127	.121	.099	.258
	70.00	.113	.011	.145	.127	.187	.100	.252
	75.00	1.252	1.010	.417	.496	.440	.337	.245
LOWER SURFACE	80.00	.732	1.032	.688	.501	.435	.332	.235
	85.00	.476	.940	.633	.507	.430	.324	.237
	90.00	.438	.850	.634	.509	.427	.319	.231
	95.00	.400	.679	.623	.504	.419	.310	.228
UPPER SURFACE	1.25	.420	.465	.443	.403	.416	.430	.395
	2.50	.427	.396	.355	.308	.346	.359	.324
	5.00	.397	.319	.284	.278	.258	.253	.237
	7.50	.356	.271	.233	.235	.199	.199	.159
	10.00	.316	.242	.193	.193	.161	.152	.103
	15.00	.273	.179	.093	.114	.128	.103	.005
	20.00	.211	.139	.083	.070	.085	.048	.094
	25.00	.203	.103	.057	.038	.027	.002	.193
	30.00	.142	.069	.081	.010	.004	.035	.257
	35.00	.111	.037	.005	.023	.034	.079	.306
	40.00	.088	.012	.037	.048	.071	.116	.335
	45.00	.057	.021	.061	.068	.105	.168	.347
	50.00	.023	.051	.083	.097	.130	.217	.358
	55.00	.002	.063	.092	.113	.156	.260	.346
	60.00	.024	.075	.096	.123	.174	.303	.332
	65.00	.046	.083	.093	.138	.185	.328	.320
	70.00	.044						.317
	75.00	.071	.074	.182	.182	.214	.298	.310
	80.00	.070	.089	.141	.185	.232	.318	.309
UPPER SURFACE	85.00	.100	.076	.133	.202	.248	.356	.302
	90.00	.085	.062	.176	.234	.226	.386	.280
	95.00	.124	.054	.214	.277	.316	.369	.218
M = 0.98 $\alpha = 7.9^\circ$								
UPPER SURFACE	.00	.316	.114	.175	.203	.452	.529	.502
	1.25	.060	1.053	1.180	1.164	1.195	1.051	1.054
	2.50	.179	1.052	1.130	1.209	1.212	1.080	1.052
	5.00	.282	.969	1.126	1.145	1.157	.998	1.006
	7.50	.320	.765	1.061	1.099	1.115	.965	.964
	10.00	.318	.671	1.039	1.073	1.086	.903	.914
	15.00	.330	.551	.964	1.027	.979	.709	.702
	20.00	.317	.484	.895	.903	.903	.495	.629
	25.00	.332	.446	.872	.922	.953	.455	.584
	30.00	.334	.427	.840	.944	.909	.475	.537
	35.00	.330	.426	.770	.944	.839	.461	.460
	40.00	.338	.434	.702	.917	.887	.439	.487
	45.00	.350	.201	.089	.080	.842	.409	.408
	50.00	.290	.015	.080	.012	.803	.392	.427
	55.00	.293	.101	.026	.083	.178	.375	.408
	60.00	.128	.089	.036	.176	.153	.354	.392
	65.00	.108	.100	.042	.182	.140	.345	.382
	70.00	.360	.004	.037	.199	.099	.388	.377
	75.00	.250	1.014	.633	.516	.500	.448	.356
LOWER SURFACE	80.00	.779	1.027	.658	.520	.519	.440	.334
	85.00	.773	.943	.660	.526	.514	.412	.315
	90.00	.789	.849	.654	.524	.501	.382	.300
	95.00	.430	.708	.637	.520	.482	.353	.278
UPPER SURFACE	1.25	.452	.543	.505	.465	.465	.463	.425
	2.50	.490	.476	.436	.383	.407	.407	.362
	5.00	.465	.402	.359	.348	.325	.310	.278
	7.50	.444	.349	.301	.304	.269	.250	.203
	10.00	.401	.317	.269	.255	.228	.251	.144
	15.00	.353	.251	.215	.187	.177	.159	.046
	20.00	.287	.208	.180	.144	.128	.100	.037
	25.00	.272	.165	.121	.098	.081	.051	.155
	30.00	.208	.126	.087	.072	.042	.008	.283
	35.00	.172	.095	.085	.037	.010	.039	.272
	40.00	.145	.070	.084	.008	.025	.060	.305
	45.00	.110	.033	.090	.022	.062	.127	.334
	50.00	.079	.009	.085	.048	.090	.175	.353
	55.00	.053	.004	.040	.071	.120	.222	.371
	60.00	.025	.022	.045	.087	.142	.263	.366
	65.00	.007	.031	.049	.104	.154	.293	.361
	70.00	.004						.364
	75.00	.023	.026	.088	.152	.187	.258	.349
	80.00	.019	.044	.094	.163	.204	.285	.340
	85.00	.044	.033	.117	.184	.224	.322	.312
	90.00	.044	.051	.123	.197	.238	.344	.312
	95.00	.082	.064	.197	.262	.300	.396	.258

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.98    α = 11.4°								
	0.00	.291	.453	.496	.050	.759	.850	.742	
	1.25	.185	1.112	1.120	1.263	1.223	.901	.714	
	2.50	.327	1.096	1.051	1.277	1.214	.910	.708	
	5.00	.448	1.121	1.004	1.228	1.197	.881	.699	
	7.50	.494	1.093	.925	1.196	1.167	.894	.691	
	10.00	.488	1.031	.876	1.160	1.130	.887	.682	
	15.00	.496	.939	.820	1.036	1.006	.877	.663	
	20.00	.463	.889	.747	.797	.877	.865	.640	
	25.00	.449	.880	.656	.763	.841	.834	.612	
	30.00	.441	.852	.573	.744	.811	.816	.589	
	35.00	.424	.824	.496	.723	.788	.816	.565	
	40.00	.424	.773	.438	.690	.763	.792	.543	
	45.00	.433	.716	.385	.637	.745	.761	.524	
	50.00	.465	.647	.335	.571	.724	.728	.508	
	55.00	.382	.566	.283	.498	.709	.693	.490	
	60.00	.333	.485	.231	.389	.689	.654	.471	
LOWER SURFACE	65.00	.223	.403	.182	.408	.659	.619	.465	
	70.00	.041	.330	.130	.358	.607	.579	.450	
	75.00	1.041	.980	.750	.557	.611	.567	.448	
	80.00	.770	.980	.696	.554	.632	.567	.440	
	85.00	.773	.902	.614	.536	.616	.555	.433	
	90.00	.442	.814	.583	.509	.585	.529	.421	
	95.00	.433	.694	.563	.475	.553	.501	.409	
	1.25	.451	.634	.573	.593	.510	.494	.466	
	2.50	.569	.598	.542	.508	.486	.475	.427	
	5.00	.716	.531	.481	.471	.420	.402	.361	
	7.50	.605	.480	.433	.417	.370	.346	.295	
	10.00	.567	.448	.399	.367	.324	.336	.233	
	15.00	.518	.379	.342	.305	.277	.252	.138	
	20.00	.438	.332	.289	.259	.222	.193	.009	
	25.00	.407	.287	.244	.212	.177	.146	.048	
	30.00	.352	.248	.211	.182	.138	.101	.122	
	35.00	.296	.216	.178	.147	.103	.055	.175	
40.00	.272	.185	.147	.109	.065	.009	.208		
45.00	.235	.148	.117	.074	.025	.041	.239		
50.00	.182	.117	.088	.043	.007	.089	.268		
55.00	.175	.100	.066	.016	.042	.134	.268		
60.00	.138	.080	.050	.009	.063	.176	.291		
65.00	.123	.066	.029	.037	.080	.210	.307		
70.00	.100						.311		
75.00	.047	.063	.020	.102	.118	.198	.311		
80.00	.056	.035	.033	.100	.143	.223	.322		
85.00	.053	.006	.066	.124	.164	.275	.340		
90.00	.024	.016	.111	.161	.160	.324	.351		
95.00	.020	.067	.159	.209	.251	.354	.360		
UPPER SURFACE	M = 0.98    α = 15.8°								
	0.00	.196	.814	.912	.698	.695	.642	.607	
	1.25	.316	1.235	1.172	.903	.678	.659	.586	
	2.50	.521	1.206	1.092	.901	.670	.645	.581	
	5.00	.691	1.232	1.131	.888	.653	.619	.574	
	7.50	.732	1.232	1.111	.893	.641	.629	.575	
	10.00	.719	1.214	1.100	.899	.631	.626	.574	
	15.00	.619	1.149	1.132	.928	.629	.627	.574	
	20.00	.619	1.142	1.092	.979	.645	.631	.569	
	25.00	.584	1.121	1.054	1.035	.687	.619	.570	
	30.00	.584	1.103	1.015	1.053	.713	.630	.577	
	35.00	.553	1.092	.983	1.052	.719	.621	.577	
	40.00	.543	1.034	.962	1.034	.723	.610	.576	
	45.00	.545	.741	.970	.974	.719	.602	.575	
	50.00	.565	.284	1.012	.903	.713	.595	.573	
	55.00	.488	.106	1.091	.847	.704	.589	.571	
	60.00	.391	.099	1.149	.773	.700	.582	.575	
65.00	.280	.357	1.086	.733	.687	.581	.573		
70.00	.078	.115	.963	.723	.629	.581	.566		
75.00	1.062	1.048	.963	.765	.650	.582	.564		
80.00	.831	1.030	.988	.793	.647	.580	.559		
85.00	.620	.944	.854	.755	.637	.578	.537		
90.00	.521	.846	.780	.691	.625	.573	.537		
95.00	.521	.673	.688						
LOWER SURFACE	1.25	.395	.676	.583	.600	.519	.490	.461	
	2.50	.585	.694	.614	.579	.547	.530	.476	
	5.00	.734	.661	.583	.563	.516	.489	.439	
	7.50	.777	.616	.547	.520	.475	.443	.378	
	10.00	.726	.584	.518	.481	.439	.436	.327	
	15.00	.667	.519	.466	.424	.391	.361	.243	
	20.00	.583	.472	.423	.380	.340	.307	.154	
	25.00	.548	.368	.368	.336	.298	.253	.060	
	30.00	.493	.428	.334	.300	.256	.213	.013	
	35.00	.434	.385	.298	.260	.216	.164	.072	
	40.00	.405	.315	.262	.223	.185	.119	.120	
	45.00	.366	.279	.232	.188	.140	.068	.153	
	50.00	.313	.244	.194	.148	.109	.018	.192	
	55.00	.304	.171	.171	.119	.077	.029	.215	
	60.00	.383	.300	.145	.090	.049	.069	.234	
	65.00	.251	.180	.119	.063	.030	.109	.259	
	70.00	.212						.276	
75.00	.145	.135	.041	.010	.026	.143	.296		
80.00	.130	.119	.036	.008	.037	.183	.315		
85.00	.150	.081	.004	.026	.092	.236	.348		
90.00	.080	.034	.048	.073	.096	.279	.374		
95.00	.047	.030	.095	.133	.200	.322	.412		

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 1.00 $\alpha = 0.0^\circ$							
	.00	.410	.583	.518	.821	.511	.494	.438
	1.25	.291	.007	.051	.028	.138	.162	.123
	2.50	.226	.006	.009	.028	.056	.038	.082
	5.00	.159	.006	.004	.033	.048	.067	.045
	7.50	.115	.013	.013	.058	.022	.031	.011
	10.00	.096	.025	.012	.045	.000	.019	.016
	15.00	.052	.045	.014	.016	.002	.017	.070
	20.00	.025	.059	.029	.020	.000	.006	.154
	25.00	.010	.086	.046	.033	.009	.001	.160
	30.00	.030	.077	.088	.031	.022	.008	.126
	35.00	.035	.005	.077	.050	.044	.021	.091
	40.00	.056	.078	.102	.072	.072	.033	.065
	45.00	.070	.164	.141	.113	.111	.058	.084
	50.00	.042	.262	.206	.173	.174	.107	.139
	55.00	.079	.353	.285	.259	.260	.189	.234
	60.00	.251	.346	.328	.355	.312	.237	.279
	65.00	.421	.356	.324	.348	.318	.216	.305
	70.00	.631	.300	.341	.361	.325	.278	.272
75.00	1.148	.436	.580	.464	.466	.372	.261	
80.00	.648	.001	.581	.581	.483	.369	.268	
85.00	.568	.523	.599	.487	.499	.362	.280	
90.00	.405	.859	.587	.483	.510	.353	.277	
95.00	.317	.580						
LOWER SURFACE	M = 1.00 $\alpha = 0.0^\circ$							
	.00	.410	.583	.518	.821	.511	.494	.438
	1.25	.291	.007	.051	.028	.138	.162	.123
	2.50	.226	.006	.009	.028	.056	.038	.082
	5.00	.159	.006	.004	.033	.048	.067	.045
	7.50	.115	.013	.013	.058	.022	.031	.011
	10.00	.096	.025	.012	.045	.000	.019	.016
	15.00	.052	.045	.014	.016	.002	.017	.070
	20.00	.025	.059	.029	.020	.000	.006	.154
	25.00	.010	.086	.046	.033	.009	.001	.160
	30.00	.030	.077	.088	.031	.022	.008	.126
	35.00	.035	.005	.077	.050	.044	.021	.091
	40.00	.056	.078	.102	.072	.072	.033	.065
	45.00	.070	.164	.141	.113	.111	.058	.084
	50.00	.042	.262	.206	.173	.174	.107	.139
	55.00	.079	.353	.285	.259	.260	.189	.234
	60.00	.251	.346	.328	.355	.312	.237	.279
	65.00	.421	.356	.324	.348	.318	.216	.305
	70.00	.631	.300	.341	.361	.325	.278	.272
75.00	1.148	.436	.580	.464	.466	.372	.261	
80.00	.648	.001	.581	.581	.483	.369	.268	
85.00	.568	.523	.599	.487	.499	.362	.280	
90.00	.405	.859	.587	.483	.510	.353	.277	
95.00	.317	.580						
UPPER SURFACE	M = 1.00 $\alpha = 3.0^\circ$							
	.00	.376	.323	.280	.446	.077	.062	.163
	1.25	.135	.733	.855	.835	.752	.797	.857
	2.50	.042	.677	.792	.895	.698	.817	.802
	5.00	.038	.256	.392	.799	.669	.659	.662
	7.50	.074	.285	.311	.603	.348	.331	.469
	10.00	.074	.230	.312	.350	.278	.276	.274
	15.00	.108	.234	.311	.137	.230	.247	.231
	20.00	.116	.234	.304	.110	.203	.192	.210
	25.00	.116	.234	.233	.093	.169	.148	.103
	30.00	.119	.240	.046	.066	.126	.116	.089
	35.00	.164	.256	.004	.044	.076	.071	.081
	40.00	.178	.211	.031	.007	.023	.029	.095
	45.00	.199	.098	.075	.043	.036	.020	.081
	50.00	.239	.211	.131	.110	.101	.077	.133
	55.00	.115	.237	.165	.164	.161	.114	.193
	60.00	.073	.164	.174	.196	.198	.126	.231
	65.00	.268	.131	.166	.206	.212	.117	.253
	70.00	.476	.075	.195	.491	.445	.381	.238
75.00	1.198	.985	.624	.499	.445	.367	.237	
80.00	.653	.617	.619	.509	.448	.332	.237	
85.00	.481	.802	.616	.516	.437	.337	.242	
90.00	.466	.601	.601	.514	.440	.328	.244	
95.00	.371							
LOWER SURFACE	M = 1.00 $\alpha = 3.0^\circ$							
	.00	.376	.323	.280	.446	.077	.062	.163
	1.25	.135	.733	.855	.835	.752	.797	.857
	2.50	.042	.677	.792	.895	.698	.817	.802
	5.00	.038	.256	.392	.799	.669	.659	.662
	7.50	.074	.285	.311	.603	.348	.331	.469
	10.00	.074	.230	.312	.350	.278	.276	.274
	15.00	.108	.234	.311	.137	.230	.247	.231
	20.00	.116	.234	.304	.110	.203	.192	.210
	25.00	.116	.234	.233	.093	.169	.148	.103
	30.00	.119	.240	.046	.066	.126	.116	.089
	35.00	.164	.256	.004	.044	.076	.071	.081
	40.00	.178	.211	.031	.007	.023	.029	.095
	45.00	.199	.098	.075	.043	.036	.020	.081
	50.00	.239	.211	.131	.110	.101	.077	.133
	55.00	.115	.237	.165	.164	.161	.114	.193
	60.00	.073	.164	.174	.196	.198	.126	.231
	65.00	.268	.131	.166	.206	.212	.117	.253
	70.00	.476	.075	.195	.491	.445	.381	.238
75.00	1.198	.985	.624	.499	.445	.367	.237	
80.00	.653	.617	.619	.509	.448	.332	.237	
85.00	.481	.802	.616	.516	.437	.337	.242	
90.00	.466	.601	.601	.514	.440	.328	.244	
95.00	.371							
UPPER SURFACE	M = 1.00 $\alpha = 3.0^\circ$							
	.00	.376	.323	.280	.446	.077	.062	.163
	1.25	.135	.733	.855	.835	.752	.797	.857
	2.50	.042	.677	.792	.895	.698	.817	.802
	5.00	.038	.256	.392	.799	.669	.659	.662
	7.50	.074	.285	.311	.603	.348	.331	.469
	10.00	.074	.230	.312	.350	.278	.276	.274
	15.00	.108	.234	.311	.137	.230	.247	.231
	20.00	.116	.234	.304	.110	.203	.192	.210
	25.00	.116	.234	.233	.093	.169	.148	.103
	30.00	.119	.240	.046	.066	.126	.116	.089
	35.00	.164	.256	.004	.044	.076	.071	.081
	40.00	.178	.211	.031	.007	.023	.029	.095
	45.00	.199	.098	.075	.043	.036	.020	.081
	50.00	.239	.211	.131	.110	.101	.077	.133
	55.00	.115	.237	.165	.164	.161	.114	.193
	60.00	.073	.164	.174	.196	.198	.126	.231
	65.00	.268	.131	.166	.206	.212	.117	.253
	70.00	.476	.075	.195	.491	.445	.381	.238
75.00	1.198	.985	.624	.499	.445	.367	.237	
80.00	.653	.617	.619	.509	.448	.332	.237	
85.00	.481	.802	.616	.516	.437	.337	.242	
90.00	.466	.601	.601	.514	.440	.328	.244	
95.00	.371							
LOWER SURFACE	M = 1.00 $\alpha = 3.0^\circ$							
	.00	.376	.323	.280	.446	.077	.062	.163
	1.25	.135	.733	.855	.835	.752	.797	.857
	2.50	.042	.677	.792	.895	.698	.817	.802
	5.00	.038	.256	.392	.799	.669	.659	.662
	7.50	.074	.285	.311	.603	.348	.331	.469
	10.00	.074	.230	.312	.350	.278	.276	.274
	15.00	.108	.234	.311	.137	.230	.247	.231
	20.00	.116	.234	.304	.110	.203	.192	.210
	25.00	.116	.234	.233	.093	.169	.148	.103
	30.00	.119	.240	.046	.066	.126	.116	.089
	35.00	.164	.256	.004	.044	.076	.071	.081
	40.00	.178	.211	.031	.007	.023	.029	.095
	45.00	.199	.098	.075	.043	.036	.020	.081
	50.00	.239	.211	.131	.110	.101	.077	.133
	55.00	.115	.237	.165	.164	.161	.114	.193
	60.00	.073	.164	.174	.196	.198	.126	.231
	65.00	.268	.131	.166	.206	.212	.117	.253
	70.00	.476	.075	.195	.491	.445	.381	.238
75.00	1.198	.985	.624	.499	.445	.367	.237	
80.00	.653	.617	.619	.509	.448	.332	.237	
85.00	.481	.802	.616	.516	.437	.337	.242	
90.00	.466	.601	.601	.514	.440	.328	.244	
95.00	.371							
UPPER SURFACE	M = 1.00 $\alpha = 3.0^\circ$							
	.00	.376	.323	.280	.446	.077	.062	.163
	1.25	.135	.733	.855	.835	.752	.797	.857
	2.50	.042	.677	.792	.895	.698	.817	.802
	5.00	.038	.256	.392	.799	.669	.659	.662
	7.50	.074	.285	.311	.603	.348	.331	.469
	10.00	.074	.230	.312	.350	.278	.276	.274
	15.00	.108	.234	.311	.137	.230	.247	.231
	20.00	.116	.234	.304	.110	.203	.192	.210
	25.00	.116	.234	.233	.093	.169	.148	.103
	30.00	.119	.240	.046	.066	.126	.116	.089
	35.00	.164	.256	.004	.044	.076	.071	.081
	40.00	.178	.211	.031	.007	.023	.029	.095
	45.00	.199	.098	.075	.043	.036	.020	.081
	50.00	.239	.211	.131	.110	.101	.077	.133
	55.00	.115	.237	.165	.164	.161	.114	.193
	60.00	.073	.164	.174	.196	.198	.126	.231
	65.00	.268	.131	.166	.206	.212	.117	.253
	70.00	.476	.075	.195	.491	.445	.381	.238
75.00	1.198	.985	.624	.499	.445	.367	.237	
80.00	.653	.617	.619	.509	.448	.332	.237	
85.00	.481	.802	.616	.516	.437	.337	.242	
90.00	.466	.601	.601	.514	.440	.328	.244	
95.00	.371							
LOWER SURFACE	M = 1.00 $\alpha = 3.0^\circ$							
	.00	.376	.323	.280	.446	.077	.062	.163
	1.25	.135	.733	.855	.835	.752	.797	.857
	2.50	.042	.677	.792	.895	.698	.817	.802
	5.00	.038	.256	.392	.799	.669	.659	.662
	7.50	.074	.285	.311	.603	.348	.331	.469
	10.00	.074	.230	.312	.350	.278	.276	.274
	15.00	.108	.234	.311	.137	.230	.247	.231
	20.00	.116	.234	.304	.110	.203	.192	.210
	25.00	.116	.234	.233	.093	.169	.148	.103

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
<b>M = 1.00    <math>\alpha = 5.9^\circ</math></b>							
UPPER SURFACE	0.00	.363	.135	.032	.344	.191	.249
	1.25	.051	.927	1.004	.979	.999	.989
	2.50	.051	.891	.979	1.029	1.029	1.063
	5.00	.145	.626	.939	.963	.965	.976
	7.50	.179	.410	.858	.915	.925	.942
	10.00	.179	.362	.806	.871	.901	.902
	15.00	.203	.330	.486	.816	.803	.663
	20.00	.251	.316	.354	.369	.415	.277
	25.00	.251	.317	.368	.155	.142	.209
	30.00	.234	.319	.288	.118	.119	.184
	35.00	.236	.325	.073	.080	.083	.143
	40.00	.243	.331	.018	.037	.041	.093
	45.00	.259	.044	.034	.028	.003	.043
	50.00	.304	.123	.091	.085	.085	.011
	55.00	.207	.177	.129	.138	.157	.057
	60.00	.035	.126	.145	.218	.192	.093
	65.00	.208	.119	.135	.205	.114	.114
	70.00	.466	.093	.163	.215	.314	.105
LOWER SURFACE	75.00	1.202	1.012	.615	.505	.476	.403
	80.00	.609	.913	.632	.510	.479	.391
	85.00	.440	.913	.633	.524	.475	.377
	90.00	.407	.814	.687	.529	.476	.365
	95.00	.373	.653	.612	.525	.479	.356
	1.25	.433	.486	.460	.423	.420	.430
	2.50	.441	.410	.385	.329	.351	.359
	5.00	.398	.340	.304	.302	.265	.254
	7.50	.371	.288	.282	.268	.207	.200
	10.00	.336	.260	.218	.205	.169	.200
	15.00	.288	.159	.116	.138	.114	.114
	20.00	.229	.128	.077	.092	.072	.058
	25.00	.219	.118	.044	.053	.033	.012
	30.00	.168	.087	.016	.026	.010	.021
	35.00	.107	.053	.018	.005	.022	.062
	40.00	.074	.029	.041	.034	.051	.099
	45.00	.040	.033	.072	.059	.091	.143
	50.00	.009	.043	.077	.078	.113	.195
	55.00	.011	.060	.078	.085	.139	.235
UPPER SURFACE	60.00	.034	.068	.078	.087	.170	.279
	65.00	.033	.070	.070	.108	.196	.306
	70.00	.065	.076	.080	.151	.279	.391
	75.00	.057	.076	.080	.155	.308	.395
	80.00	.086	.070	.080	.171	.323	.378
	85.00	.079	.061	.140	.202	.303	.377
	90.00	.111	.041	.182	.245	.291	.377
	95.00	.111	.041	.182	.245	.291	.377
	1.25	.364	.053	.125	.255	.395	.470
	2.50	.019	1.018	1.116	1.092	1.131	1.062
	5.00	.134	1.002	1.069	1.131	1.152	1.139
	7.50	.235	.931	1.068	1.074	1.101	1.048
	10.00	.277	.696	1.000	1.033	1.059	1.036
	15.00	.273	.467	.921	1.004	1.031	.980
	20.00	.274	.422	.659	.967	.972	.788
	25.00	.287	.397	.467	.900	.772	.580
	30.00	.290	.383	.385	.581	.558	.463
	35.00	.290	.386	.147	.396	.351	.436
	40.00	.296	.395	.069	.296	.280	.414
	45.00	.307	.177	.021	.178	.231	.320
	50.00	.349	.041	.031	.048	.190	.165
	55.00	.270	.123	.070	.117	.120	.165
	60.00	.105	.098	.058	.207	.120	.322
	65.00	.139	.107	.108	.213	.097	.299
LOWER SURFACE	70.00	1.389	.028	.432	.504	.060	.899
	75.00	1.281	.028	.449	.509	.039	.846
	80.00	.717	.028	.449	.515	.517	.483
	85.00	.448	.028	.449	.515	.517	.474
	90.00	.408	.028	.449	.515	.517	.456
	95.00	.408	.028	.449	.515	.517	.433
	1.25	.475	.561	.519	.484	.474	.469
	2.50	.509	.499	.453	.396	.415	.412
	5.00	.486	.422	.373	.321	.333	.315
	7.50	.467	.369	.321	.281	.277	.258
	10.00	.425	.338	.288	.257	.233	.228
	15.00	.380	.272	.251	.201	.189	.169
	20.00	.315	.226	.191	.159	.135	.115
	25.00	.295	.191	.157	.115	.093	.063
	30.00	.230	.125	.104	.089	.058	.025
	35.00	.168	.077	.055	.035	.025	.021
	40.00	.141	.060	.044	.028	.007	.053
	45.00	.107	.027	.019	.008	.042	.104
	50.00	.077	.018	.019	.029	.069	.153
	55.00	.053	.004	.026	.047	.102	.201
	60.00	.038	.013	.034	.060	.121	.238
	65.00	.038	.013	.034	.060	.121	.238
	70.00	.015	.003	.052	.124	.164	.253
	75.00	.001	.020	.064	.136	.181	.274
	80.00	.017	.021	.086	.154	.201	.316
	85.00	.017	.021	.086	.154	.201	.316
	90.00	.017	.021	.086	.154	.201	.316
	95.00	.017	.021	.086	.154	.201	.316

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

		PRESSURE COEFFICIENT, $P_i$ AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
PERCENT CHORD								
$M = 1.00 \quad \alpha = 11.4^\circ$								
UPPER SURFACE	.00	.303	.421	.453	.008	.713	.811	.732
	1.25	.158	1.085	1.088	1.217	1.203	.969	.790
	2.50	.299	1.065	1.031	1.432	1.197	.972	.785
	5.00	.420	1.089	.998	1.190	1.175	.938	.773
	7.50	.469	1.059	.916	1.155	1.145	.956	.769
	10.00	.462	.995	.857	1.120	1.104	.943	.759
	15.00	.470	.903	.799	1.014	.992	.918	.737
	20.00	.438	.852	.725	.763	.836	.883	.717
	25.00	.424	.789	.636	.723	.792	.840	.689
	30.00	.419	.688	.551	.704	.768	.832	.671
	35.00	.406	.567	.481	.688	.746	.810	.651
	40.00	.402	.464	.424	.661	.725	.789	.629
	45.00	.410	.419	.439	.613	.708	.763	.615
	50.00	.439	.036	.517	.553	.693	.743	.598
	55.00	.500	.077	.566	.484	.679	.721	.580
	60.00	.518	.091	.579	.373	.668	.694	.554
	LOWER SURFACE	65.00	.507	.140	.621	.391	.644	.663
70.00		.445	.020	.563	.342	.630	.614	.525
75.00		1.033	.957	.735	.548	.618	.610	.515
80.00		.747	.957	.691	.548	.642	.606	.504
85.00		.451	.877	.600	.534	.629	.596	.496
90.00		.425	.795	.568	.507	.604	.576	.486
95.00		.423	.676	.542	.489	.574	.550	.476
1.25		.458	.647	.581	.597	.516	.503	.477
2.50		.582	.606	.548	.516	.491	.484	.442
5.00		.781	.543	.488	.479	.426	.412	.377
7.50		.617	.492	.439	.428	.376	.352	.306
10.00		.568	.457	.406	.376	.333	.345	.250
15.00		.523	.389	.349	.315	.281	.260	.153
20.00		.443	.342	.298	.270	.233	.203	.049
25.00		.413	.296	.255	.227	.186	.153	.036
30.00		.357	.261	.219	.191	.148	.109	.106
35.00		.303	.223	.186	.155	.108	.064	.164
40.00		.280	.193	.153	.122	.075	.020	.198
45.00		.241	.156	.127	.086	.038	.029	.236
50.00	.191	.125	.096	.056	.006	.078	.266	
55.00	.180	.104	.079	.028	.028	.125	.290	
60.00	.141	.085	.064	.005	.050	.163	.293	
65.00	.130	.074	.042	.024	.068	.195	.302	
70.00	.101						.308	
75.00	.038	.071	.004	.085	.107	.185	.314	
80.00	.050	.045	.018	.085	.133	.230	.325	
85.00	.064	.019	.049	.107	.152	.274	.340	
90.00	.008	.000	.092	.143	.145	.320	.353	
95.00	.006	.031	.139	.192	.236	.351	.378	
$M = 1.03 \quad \alpha = 0.0^\circ$								
UPPER SURFACE	.00	.679	.576	.513	.832	.551	.529	.468
	1.25	.245	.080	.065	.037	.185	.242	.169
	2.50	.191	.009	.047	.042	.101	.084	.133
	5.00	.125	.009	.050	.055	.095	.109	.091
	7.50	.083	.028	.055	.084	.067	.074	.049
	10.00	.069	.042	.083	.075	.046	.064	.027
	15.00	.035	.059	.090	.056	.043	.023	.017
	20.00	.012	.074	.042	.064	.043	.037	.108
	25.00	.020	.094	.089	.071	.051	.048	.118
	30.00	.042	.110	.089	.080	.063	.060	.086
	35.00	.044	.108	.112	.096	.083	.073	.049
	40.00	.061	.105	.145	.116	.112	.097	.025
	45.00	.086	.129	.155	.155	.155	.144	.041
	50.00	.109	.150	.155	.215	.214	.144	.094
	55.00	.015	.388	.330	.294	.298	.225	.190
	60.00	.015	.432	.368	.369	.346	.267	.245
	65.00	.408	.421	.383	.364	.349	.248	.269
LOWER SURFACE	70.00	1.600	.369	.265	.376	.270	.243	.260
	75.00	1.114	.883	.588	.428	.480	.342	.231
	80.00	.574	.939	.519	.429	.425	.339	.219
	85.00	.383	.866	.534	.441	.435	.334	.232
	90.00	.200	.800	.547	.448	.448	.325	.243
	95.00	.124	.602	.534	.442	.457	.316	.243
	1.25	.220	.013	.033	.043	.203	.273	.368
	2.50	.184	.005	.021	.045	.129	.193	.265
	5.00	.126	.005	.045	.004	.129	.193	.203
	7.50	.088	.014	.049	.038	.145	.194	.231
	10.00	.067	.030	.059	.062	.157	.146	.247
	15.00	.008	.056	.085	.114	.166	.204	.259
	20.00	.009	.076	.112	.137	.187	.237	.290
	25.00	.039	.092	.131	.166	.216	.257	.307
	30.00	.063	.106	.153	.180	.234	.278	.315
	35.00	.067	.133	.166	.206	.253	.296	.342
	40.00	.091	.145	.192	.235	.275	.321	.352
	45.00	.119	.174	.218	.260	.308	.357	.360
	50.00	.141	.205	.242	.282	.333	.386	.388
	55.00	.165	.211	.249	.298	.350	.407	.389
	60.00	.184	.220	.249	.298	.350	.447	.384
	65.00	.183	.217	.249	.296	.339	.433	.351
	70.00	.201	.223	.261	.279	.286	.294	.275
	75.00	.201	.223	.261	.279	.286	.294	.275
	80.00	.214	.223	.261	.279	.286	.294	.275
	85.00	.214	.223	.261	.279	.286	.294	.275
	90.00	.214	.223	.261	.279	.286	.294	.275
	95.00	.208	.213	.209	.269	.293	.293	.245

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 1.03    α = 3.9°							
	.00	.547	.353	.246	.482	.123	.106	.202
	1.25	.114	.713	.785	.767	.761	.722	.782
	2.50	.029	.644	.743	.823	.792	.732	.734
	5.00	.056	.259	.634	.742	.715	.537	.603
	7.50	.092	.249	.307	.645	.616	.296	.440
	10.00	.098	.235	.297	.419	.310	.246	.241
	15.00	.121	.228	.297	.281	.084	.217	.194
	20.00	.125	.224	.292	.093	.091	.165	.186
	25.00	.150	.227	.292	.073	.082	.118	.100
	30.00	.162	.231	.062	.040	.059	.082	.056
	35.00	.162	.244	.012	.009	.025	.036	.043
	40.00	.175	.251	.049	.035	.022	.008	.036
	45.00	.194	.083	.090	.092	.078	.056	.049
	50.00	.227	.217	.138	.156	.144	.107	.086
	55.00	.185	.235	.168	.204	.208	.149	.155
	60.00	.068	.135	.178	.254	.239	.166	.196
	65.00	.264	.114	.174	.237	.246	.160	.227
	70.00	.469	.112	.204	.248	.416	.150	.229
	75.00	1.128	.914	.551	.453	.416	.350	.217
LOWER SURFACE	.00	.644	.944	.570	.457	.415	.338	.207
	1.25	.414	.845	.566	.472	.414	.323	.211
	2.50	.334	.738	.556	.478	.417	.310	.216
	5.00	.309	.580	.538	.471	.420	.301	.215
	1.25	.324	.366	.360	.346	.353	.374	.341
	2.50	.336	.304	.290	.269	.285	.299	.269
	5.00	.325	.241	.217	.223	.201	.195	.200
	7.50	.273	.198	.170	.174	.148	.147	.131
	10.00	.237	.167	.142	.133	.111	.151	.086
	15.00	.206	.125	.098	.068	.080	.070	.011
	20.00	.149	.089	.054	.035	.029	.022	.100
	25.00	.149	.057	.018	.000	.008	.008	.180
	30.00	.097	.029	.013	.024	.035	.036	.227
	35.00	.071	.000	.041	.056	.063	.075	.255
	40.00	.053	.018	.066	.077	.083	.107	.257
	45.00	.024	.052	.089	.105	.108	.148	.257
	50.00	.005	.078	.116	.125	.106	.198	.267
	55.00	.028	.091	.124	.130	.122	.243	.281
	60.00	.050	.098	.121	.128	.140	.278	.267
	65.00	.073	.113	.123	.113	.154	.299	.261
70.00	.073	.106	.077	.121	.178	.259	.259	
75.00	.099	.112	.079	.125	.186	.270	.257	
80.00	.099	.098	.077	.140	.197	.290	.265	
85.00	.105	.077	.111	.165	.175	.306	.269	
90.00	.105	.018	.148	.209	.257	.311	.272	
95.00	.106	.018	.148	.209	.257	.311	.256	
UPPER SURFACE	M = 1.03    α = 5.8°							
	.00	.508	.182	.071	.382	.139	.190	.123
	1.25	.061	.879	.930	.908	.926	.923	.970
	2.50	.032	.833	.908	.968	.964	.984	.972
	5.00	.127	.766	.876	.898	.910	.895	.874
	7.50	.171	.381	.802	.852	.867	.868	.851
	10.00	.175	.314	.770	.812	.835	.837	.833
	15.00	.195	.296	.779	.797	.747	.715	.627
	20.00	.190	.293	.322	.583	.546	.321	.229
	25.00	.209	.291	.340	.153	.128	.172	.136
	30.00	.219	.291	.280	.079	.064	.137	.124
	35.00	.218	.297	.055	.040	.031	.097	.120
	40.00	.223	.314	.006	.001	.007	.048	.106
	45.00	.239	.033	.060	.008	.049	.004	.106
	50.00	.278	.152	.116	.122	.095	.043	.128
	55.00	.222	.191	.150	.167	.146	.085	.177
	60.00	.021	.185	.166	.252	.192	.121	.211
	65.00	.224	.111	.160	.240	.229	.153	.243
	70.00	.438	.070	.190	.252	.412	.188	.247
	75.00	1.126	.912	.572	.467	.436	.364	.248
LOWER SURFACE	.00	.674	.931	.591	.477	.437	.352	.245
	1.25	.396	.840	.588	.485	.440	.338	.244
	2.50	.386	.744	.574	.492	.445	.329	.244
	5.00	.310	.600	.557	.487	.445	.321	.239
	1.25	.379	.486	.468	.449	.451	.461	.432
	2.50	.420	.395	.395	.344	.383	.390	.360
	5.00	.393	.348	.317	.320	.298	.288	.287
	7.50	.378	.298	.267	.278	.243	.235	.211
	10.00	.341	.275	.235	.228	.202	.232	.159
	15.00	.304	.212	.184	.159	.163	.148	.064
	20.00	.237	.170	.138	.116	.111	.093	.070
	25.00	.235	.139	.101	.080	.073	.044	.121
	30.00	.178	.107	.070	.056	.047	.014	.187
	35.00	.147	.077	.042	.028	.020	.025	.234
	40.00	.123	.058	.012	.006	.009	.061	.264
	45.00	.096	.025	.012	.023	.028	.104	.284
	50.00	.066	.002	.036	.040	.073	.151	.298
	55.00	.041	.013	.048	.051	.097	.192	.291
	60.00	.012	.024	.047	.055	.115	.212	.270
	65.00	.002	.039	.047	.069	.127	.259	.260
70.00	.002	.034	.036	.110	.151	.239	.256	
75.00	.047	.038	.039	.117	.161	.269	.257	
80.00	.036	.035	.085	.136	.175	.305	.276	
85.00	.065	.017	.098	.160	.159	.331	.277	
90.00	.056	.000	.138	.200	.240	.334	.263	

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, $P$ , AT:												
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2						
$M = 1.03 \quad \alpha = 7.8^\circ$														
UPPER SURFACE	.00	.470	-	.009	-	.082	-	.297	-	.339	-	.411	-	.377
	1.25	.009	-	1.002	-	1.043	-	1.025	-	1.047	-	1.000	-	1.038
	2.50	.093	-	.974	-	.999	-	1.062	-	1.066	-	1.072	-	1.038
	5.00	.199	-	.935	-	.999	-	1.007	-	1.019	-	.977	-	.968
	7.50	.246	-	.827	-	.936	-	.968	-	.980	-	.965	-	.948
	10.00	.251	-	.603	-	.822	-	.940	-	.958	-	.920	-	.908
	15.00	.268	-	.409	-	.871	-	.903	-	.897	-	.763	-	.764
	20.00	.253	-	.359	-	.722	-	.856	-	.730	-	.551	-	.562
	25.00	.266	-	.347	-	.473	-	.586	-	.512	-	.427	-	.420
	30.00	.269	-	.339	-	.379	-	.403	-	.314	-	.391	-	.380
	35.00	.265	-	.346	-	.152	-	.303	-	.245	-	.370	-	.372
	40.00	.267	-	.353	-	.045	-	.197	-	.208	-	.352	-	.371
	45.00	.280	-	.160	-	.019	-	.051	-	.176	-	.333	-	.373
	50.00	.316	-	.081	-	.082	-	.077	-	.146	-	.316	-	.376
	55.00	.264	-	.148	-	.121	-	.160	-	.125	-	.300	-	.373
60.00	.084	-	.103	-	.142	-	.249	-	.110	-	.283	-	.372	
65.00	.151	-	.105	-	.142	-	.254	-	.101	-	.279	-	.368	
70.00	.430	-	.037	-	.171	-	.270	-	.110	-	.225	-	.356	
75.00	1.092	-	.898	-	.580	-	.450	-	.485	-	.446	-	.346	
80.00	.685	-	.910	-	.601	-	.457	-	.511	-	.437	-	.326	
85.00	.388	-	.826	-	.598	-	.462	-	.505	-	.419	-	.314	
90.00	.302	-	.735	-	.582	-	.463	-	.487	-	.393	-	.305	
95.00	.337	-	.609	-	.563	-	.461	-	.469	-	.373	-		
LOWER SURFACE	1.25	.418	-	.575	-	.537	-	.515	-	.506	-	.501	-	.473
	2.50	.499	-	.509	-	.467	-	.428	-	.448	-	.443	-	.412
	5.00	.491	-	.441	-	.394	-	.392	-	.368	-	.349	-	.334
	7.50	.486	-	.388	-	.348	-	.350	-	.313	-	.293	-	.263
	10.00	.447	-	.360	-	.314	-	.299	-	.274	-	.293	-	.208
	15.00	.402	-	.246	-	.261	-	.233	-	.226	-	.207	-	.117
	20.00	.334	-	.251	-	.210	-	.193	-	.174	-	.150	-	.003
	25.00	.319	-	.215	-	.170	-	.158	-	.132	-	.103	-	.077
	30.00	.261	-	.179	-	.135	-	.123	-	.101	-	.065	-	.150
	35.00	.225	-	.147	-	.108	-	.090	-	.067	-	.019	-	.200
	40.00	.199	-	.123	-	.078	-	.063	-	.031	-	.017	-	.231
	45.00	.166	-	.087	-	.053	-	.035	-	.003	-	.060	-	.266
	50.00	.136	-	.062	-	.029	-	.007	-	.030	-	.108	-	.294
	55.00	.107	-	.049	-	.018	-	.008	-	.057	-	.151	-	.306
	60.00	.078	-	.030	-	.016	-	.028	-	.078	-	.189	-	.301
65.00	.065	-	.019	-	.009	-	.047	-	.089	-	.221	-	.302	
70.00	.052	-		-		-		-		-		-	.297	
75.00	.005	-	.031	-	.016	-	.083	-	.119	-	.231	-	.295	
80.00	.010	-	.019	-	.026	-	.094	-	.134	-	.247	-	.296	
85.00	.020	-	.016	-	.051	-	.115	-	.152	-	.280	-	.301	
90.00	.017	-	.018	-	.091	-	.143	-	.138	-	.324	-	.301	
95.00	.018	-	.000	-	.130	-	.186	-	.223	-	.341	-	.285	

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M 0.60 $\alpha = 0.0^\circ$								
	.00	.420	.482	.439	.692	.441	.424	.315	
	1.25	.059	.064	.004	.074	.189	.276	.172	
	2.50	.042	.058	.006	.051	.103	.131	.117	
	5.00	.028	.054	.009	.027	.075	.102	.058	
	7.50	.005	.061	.006	.027	.048	.070	.020	
	10.00	.013	.072	.033	.023	.034	.058	.006	
	15.00	.036	.074	.033	.004	.030	.031	.026	
	20.00	.058	.075	.027	.010	.026	.036	.042	
	25.00	.072	.072	.023	.021	.031	.036	.035	
	30.00	.074	.062	.011	.030	.041	.036	.034	
	35.00	.066	.044	.011	.048	.056	.053	.034	
	40.00	.070	.013	.053	.073	.090	.069	.034	
	45.00	.064	.037	.090	.108	.123	.100	.026	
	50.00	.050	.116	.154	.166	.173	.146	.030	
	55.00	.000	.228	.246	.240	.252	.209	.039	
	60.00	.094	.296	.316	.334	.320	.271	.031	
	65.00	.180	.248	.322	.343	.320	.244	.050	
	70.00	.312	.240	.327	.287	.230	.154	.040	
LOWER SURFACE	75.00	.556	.727	.338	.284	.230	.143	.052	
	80.00	.509	.727	.353	.288	.232	.134	.072	
	85.00	.395	.693	.374	.293	.234	.124	.087	
	90.00	.247	.622	.364	.299	.238	.121	.080	
	95.00	.158	.502	.364	.299	.238	.121	.080	
	GAP								
	1.25	.125	.144	.223	.295	.411	.471	.491	
	2.50	.069	.109	.158	.213	.286	.307	.347	
	5.00	.027	.101	.145	.132	.231	.263	.256	
	7.50	.007	.112	.149	.150	.223	.230	.245	
	10.00	.031	.122	.154	.163	.211	.207	.233	
	15.00	.062	.141	.168	.192	.207	.219	.218	
	20.00	.095	.153	.182	.194	.212	.218	.218	
	25.00	.081	.160	.192	.205	.219	.218	.218	
	30.00	.124	.172	.210	.209	.226	.216	.218	
	35.00	.138	.190	.210	.217	.227	.216	.218	
	40.00	.149	.200	.224	.223	.231	.216	.218	
	45.00	.157	.219	.226	.228	.238	.216	.218	
	50.00	.204	.236	.233	.234	.240	.213	.218	
55.00	.190	.234	.234	.234	.241	.208	.218		
60.00	.207	.247	.227	.233	.232	.201	.218		
65.00	.239	.278	.244	.234	.210	.178	.178		
70.00	.273						.121		
75.00	.191	.024	.079	.152	.152	.160	.093		
80.00	.089	.067	.134	.154	.157	.142	.090		
85.00	.098	.079	.149	.154	.157	.110	.093		
90.00	.065	.085	.166	.168	.144	.115	.065		
95.00	.062	.113	.175	.181	.159	.114	.059		
GAP									
UPPER SURFACE	M = 0.60 $\alpha = 4.0^\circ$								
	.00	.195	.134					.001	
	1.25	.453	.913					.624	
	2.50	.410	.487					.416	
	5.00	.323	.393					.262	
	7.50	.257	.336					.242	
	10.00	.220	.309					.200	
	15.00	.221	.265					.132	
	20.00	.220	.238					.123	
	25.00	.220	.212					.091	
	30.00	.212	.188					.069	
	35.00	.187	.151					.049	
	40.00	.183	.102					.038	
	45.00	.165	.032					.028	
	50.00	.144	.062					.029	
	55.00	.067	.161					.017	
	60.00	.013	.181					.017	
	65.00	.096	.184					.023	
	70.00	.211	.112					.023	
LOWER SURFACE	75.00	.788	.678					.028	
	80.00	.651	.690					.031	
	85.00	.467	.654					.038	
	90.00	.294	.592					.033	
	95.00	.185	.497					.033	
	GAP								
	1.25	.310	.338					.245	
	2.50	.278	.256					.165	
	5.00	.238	.184					.092	
	7.50	.191	.134					.026	
	10.00	.153	.107					.009	
	15.00	.121	.054					.069	
	20.00	.072	.027					.085	
	25.00	.056	.005					.088	
	30.00	.024	.033					.099	
	35.00	.007	.058					.108	
	40.00	.026	.077					.127	
	45.00	.041	.104					.119	
	50.00	.095	.126					.115	
55.00	.087	.139					.111		
60.00	.108	.160					.097		
65.00	.144	.199					.085		
70.00	.190						.093		
75.00	.129	.081					.069		
80.00	.085	.021					.060		
85.00	.045	.042					.063		
90.00	.046	.068					.032		
95.00	.062	.111					.023		
GAP									



TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
$M = 0.80 \quad \alpha = 8.0^\circ$							
UPPER SURFACE	0.00	.158	.015	.074	.290	.896	.738
	1.25	.588	.280	.165	.759	.919	1.086
	2.50	.533	.282	.165	.699	.754	.686
	5.00	.474	.291	.173	.629	.613	.504
	7.50	.398	.290	.183	.543	.523	.428
	10.00	.345	.296	.190	.479	.449	.326
	15.00	.318	.296	.200	.374	.334	.211
	20.00	.306	.307	.209	.296	.257	.165
	25.00	.306	.307	.209	.230	.200	.121
	30.00	.289	.286	.194	.175	.147	.092
	35.00	.255	.221	.141	.123	.096	.073
	40.00	.243	.163	.086	.073	.046	.053
	45.00	.223	.088	.020	.016	.005	.037
	50.00	.198	.005	.044	.037	.056	.057
	55.00	.111	.103	.114	.089	.104	.037
	60.00	.028	.129	.151	.153	.128	.048
	65.00	.126	.107	.144	.150	.142	.051
	70.00	.214	.037	.142	.161	.157	.068
	75.00	.824	.707	.347	.281	.224	.150
	80.00	.710	.711	.363	.281	.228	.143
LOWER SURFACE	85.00	.505	.602	.362	.283	.235	.134
	90.00	.335	.605	.362	.283	.235	.127
	95.00	.213	.505	.365	.284	.233	.125
	1.25	.363	.442	.455	.423	.442	.436
	2.50	.364	.364	.385	.357	.366	.362
	5.00	.306	.293	.296	.307	.275	.257
	7.50	.282	.234	.238	.240	.219	.198
	10.00	.239	.209	.197	.194	.174	.150
	15.00	.207	.137	.146	.128	.118	.101
	20.00	.150	.100	.093	.083	.074	.052
	25.00	.135	.060	.052	.047	.037	.016
	30.00	.095	.032	.017	.017	.004	.016
	35.00	.056	.000	.009	.014	.001	.051
	40.00	.032	.022	.037	.037	.046	.070
	45.00	.015	.056	.083	.068	.072	.093
	50.00	.037	.083	.077	.084	.089	.108
	55.00	.043	.096	.086	.099	.101	.120
	60.00	.102	.125	.101	.116	.114	.126
	65.00	.157	.165	.143	.134	.126	.119
	70.00	.101	.105	.030	.037	.045	.084
UPPER SURFACE	75.00	.002	.002	.055	.084	.078	.073
	80.00	.015	.029	.083	.083	.088	.063
	85.00	.083	.066	.169	.117	.093	.078
	90.00	.046	.110	.130	.131	.087	.045
	GAP		.793	.522	.256	.279	.161
$M = 0.80 \quad \alpha = 8.0^\circ$							
UPPER SURFACE	0.00	.105	1.171	1.398	.441	1.086	.798
	1.25	.654	1.080	1.181	.784	.930	.640
	2.50	.616	1.014	1.106	.753	.913	.603
	5.00	.581	.926	1.091	.712	.893	.575
	7.50	.532	.853	.910	.666	.872	.557
	10.00	.504	.812	.818	.626	.861	.519
	15.00	.459	.694	.594	.541	.808	.479
	20.00	.425	.571	.428	.467	.729	.383
	25.00	.401	.477	.339	.419	.685	.316
	30.00	.380	.395	.279	.366	.624	.263
	35.00	.339	.327	.229	.309	.507	.230
	40.00	.220	.256	.181	.249	.436	.198
	45.00	.222	.176	.134	.240	.356	.158
	50.00	.265	.095	.080	.124	.282	.171
	55.00	.165	.005	.059	.075	.206	.158
	60.00	.059	.014	.084	.013	.108	.145
	65.00	.029	.015	.073	.026	.184	.132
	70.00	.125	.697	.335	.027	.196	.093
	75.00	.744	.700	.343	.306	.254	.229
	80.00	.674	.672	.355	.313	.263	.244
LOWER SURFACE	85.00	.536	.700	.355	.314	.263	.226
	90.00	.378	.605	.369	.311	.254	.187
	95.00	.258	.485	.385	.287	.231	.164
	1.25	.389	.480	.471	.495	.476	.413
	2.50	.381	.437	.440	.433	.412	.385
	5.00	.377	.369	.362	.381	.356	.364
	7.50	.370	.314	.325	.321	.322	.266
	10.00	.325	.282	.214	.277	.246	.238
	15.00	.298	.214	.161	.205	.184	.164
	20.00	.227	.172	.114	.158	.134	.109
	25.00	.210	.131	.077	.107	.096	.067
	30.00	.168	.094	.048	.079	.088	.040
	35.00	.117	.059	.017	.046	.084	.005
	40.00	.093	.031	.009	.018	.004	.031
	45.00	.070	.000	.000	.010	.033	.025
	50.00	.013	.031	.033	.033	.086	.077
	55.00	.014	.052	.085	.064	.078	.091
	60.00	.018	.081	.073	.087	.096	.101
	65.00	.056	.132	.148	.105	.117	.097
	70.00	.119					
	75.00	.064	.133	.082	.008	.006	.033
GAP	80.00	.036	.020	.035	.042	.060	.051
	85.00	.015	.010	.007	.053	.072	.051
	90.00	.003	.048	.085	.088	.083	.071
	95.00	.013	.089	.183	.106	.111	.068
			.782	.628	.256	.312	.218

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.80    α = 11.3°							
	.00	.009	1.708	1.506	.988	.645	.454	.396
	1.25	1.041	1.344	1.072	.904	.576	.402	.294
	2.50	1.110	1.356	1.060	.893	.572	.389	.291
	3.75	1.058	1.368	1.064	.885	.572	.375	.279
	5.00	.946	1.404	1.030	.869	.567	.375	.274
	7.50	.838	1.467	1.019	.857	.562	.371	.268
	10.00	.709	1.403	.973	.834	.550	.362	.261
	15.00	.632	1.217	.930	.811	.539	.352	.247
	20.00	.584	.925	.886	.791	.531	.341	.236
	25.00	.556	.624	.838	.764	.524	.335	.233
	30.00	.504	.436	.776	.733	.512	.322	.229
	35.00	.461	.314	.707	.698	.502	.311	.223
	40.00	.411	.216	.629	.648	.493	.301	.215
	45.00	.358	.120	.555	.601	.470	.285	.209
	50.00	.243	.012	.476	.559	.446	.272	.203
	55.00	.119	.058	.406	.466	.412	.263	.189
	60.00	.013	.021	.353	.451	.381	.247	.185
65.00	.336	.020	.271	.418	.471	.232	.182	
70.00	1.088	.681	.401	.469	.488	.226	.175	
75.00	.726	.683	.487	.517	.481	.236	.171	
80.00	.577	.666	.476	.507	.481	.235	.169	
85.00	.425	.609	.439	.446	.481	.239	.169	
90.00	.295	.490	.372	.399	.351	.234	.165	
95.00								
LOWER SURFACE	1.25	.390	.497	.468	.504	.490	.482	.413
	2.50	.377	.524	.506	.497	.485	.465	.378
	3.75	.560	.490	.462	.467	.433	.392	.309
	5.00	.498	.442	.417	.417	.380	.338	.240
	7.50	.463	.407	.381	.370	.337	.312	.188
	10.00	.432	.333	.319	.297	.273	.237	.106
	15.00	.361	.288	.260	.244	.220	.175	.039
	20.00	.324	.236	.214	.197	.171	.125	.015
	25.00	.283	.194	.177	.157	.134	.086	.016
	30.00	.228	.159	.139	.119	.099	.045	.037
	35.00	.192	.125	.103	.085	.062	.010	.055
	40.00	.156	.084	.076	.058	.032	.024	.067
	45.00	.103	.053	.041	.022	.001	.049	.076
	50.00	.097	.033	.015	.008	.033	.072	.083
	55.00	.053	.007	.009	.039	.056	.090	.085
	60.00	.020	.059	.061	.073	.090	.093	.081
	65.00	.063						.084
	70.00	.029	.185	.138	.093	.039	.049	.092
75.00	.103	.064	.038	.001	.040	.064	.091	
80.00	.066	.004	.003	.025	.079	.084	.091	
85.00	.030	.001	.001	.068	.085	.125	.103	
90.00	.011	.001	.052	.113	.163	.146	.119	
GAP		.779	.624	.412	.423	.211		
UPPER SURFACE	M = 0.80    α = 15.6°							
	.00	.146	1.951	1.140	.879	.483	.423	.548
	1.25	1.541	1.094	1.101	.698	.478	.420	.483
	2.50	1.787	1.087	1.097	.688	.479	.411	.473
	3.75	1.838	1.006	1.116	.682	.482	.406	.467
	5.00	1.532	1.951	1.096	.672	.486	.413	.476
	7.50	1.344	1.997	1.097	.671	.487	.412	.469
	10.00	1.038	1.944	1.071	.657	.490	.413	.471
	15.00	.750	1.853	1.069	.647	.491	.413	.473
	20.00	.684	1.675	1.075	.645	.488	.407	.473
	25.00	.618	1.008	1.082	.644	.482	.407	.467
	30.00	.569	.077	1.074	.636	.471	.403	.459
	35.00	.523	.774	1.045	.623	.464	.397	.454
	40.00	.461	.539	1.001	.602	.458	.385	.447
	45.00	.344	.371	.950	.581	.452	.372	.442
	50.00	.243	.233	.898	.562	.446	.377	.435
	55.00	.183	.186	.853	.507	.437	.381	.430
	60.00	.010	.133	.853	.530	.420	.376	.422
65.00	1.068	.133	.853	.476	.418	.376	.426	
70.00	.675	.680	.854	.508	.391	.385	.414	
75.00	.571	.718	.873	.526	.411	.377	.403	
80.00	.446	.859	.862	.521	.405	.377	.403	
85.00	.348	.570	.862	.499	.390	.317	.379	
90.00	.348	.425	.810	.481	.375	.307	.356	
95.00								
LOWER SURFACE	1.25	.274	.436	.415	.486	.459	.446	.310
	2.50	.311	.553	.532	.536	.506	.483	.313
	3.75	.542	.580	.533	.532	.480	.436	.263
	5.00	.610	.547	.506	.494	.442	.398	.200
	7.50	.595	.521	.475	.461	.403	.374	.148
	10.00	.570	.453	.420	.388	.344	.299	.035
	15.00	.501	.404	.361	.334	.289	.234	.038
	20.00	.438	.353	.312	.285	.237	.181	.059
	25.00	.407	.304	.271	.247	.194	.139	.059
	30.00	.351	.260	.228	.201	.154	.098	.035
	35.00	.306	.231	.192	.166	.119	.047	.017
	40.00	.277	.185	.154	.124	.073	.007	.015
	45.00	.212	.144	.119	.086	.037	.027	.013
	50.00	.211	.116	.088	.047	.001	.061	.009
	55.00	.188	.074	.050	.007	.042	.090	.007
	60.00	.119	.008	.020	.022	.086	.102	.016
	65.00	.048	.247	.202	.105	.047	.033	.038
	70.00	.175	.120	.077	.006	.048	.077	.037
75.00	.127	.083	.027	.053	.098	.105	.043	
80.00	.076	.038	.027	.123	.110	.123	.080	
85.00	.051	.008	.029	.198	.196	.183	.086	
90.00	.081	.761	.766	.480	.498	.336		
GAP								

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PRESSURE COEFFICIENT, P, AT:								
		PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
		M = 0.60    α = 19.5°								
UPPER SURFACE										
	1.00									
	2.50									
	5.00									
	7.50									
	10.00									
	15.00									
	20.00									
	25.00									
	30.00									
	35.00									
	40.00									
	45.00									
	50.00									
	55.00									
	60.00									
	65.00									
	70.00									
	75.00									
80.00										
85.00										
90.00										
95.00										
GAP										
LOWER SURFACE										
	1.25									
	2.50									
	5.00									
	7.50									
	10.00									
	15.00									
	20.00									
	25.00									
	30.00									
	35.00									
	40.00									
	45.00									
	50.00									
	55.00									
	60.00									
	65.00									
	70.00									
	75.00									
80.00										
85.00										
90.00										
95.00										
GAP										
		M = 0.60    α = 25.0°								
UPPER SURFACE										
	1.00									
	2.50									
	5.00									
	7.50									
	10.00									
	15.00									
	20.00									
	25.00									
	30.00									
	35.00									
	40.00									
	45.00									
	50.00									
	55.00									
	60.00									
	65.00									
	70.00									
	75.00									
80.00										
85.00										
90.00										
95.00										
GAP										
LOWER SURFACE										
	1.25									
	2.50									
	5.00									
	7.50									
	10.00									
	15.00									
	20.00									
	25.00									
	30.00									
	35.00									
	40.00									
	45.00									
	50.00									
	55.00									
	60.00									
	65.00									
	70.00									
	75.00									
80.00										
85.00										
90.00										
95.00										
GAP										

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.85    α = 0.0°							
	.00	.251	.518	.477	.764	.478	.468	.332
	1.25	.118	.057	.036	.019	.168	.278	.180
	2.50	.086	.045	.024	.011	.085	.135	.119
	5.00	.064	.046	.019	.004	.065	.100	.089
	7.50	.033	.057	.026	.017	.039	.069	.058
	10.00	.012	.070	.045	.015	.022	.057	.045
	15.00	.020	.078	.038	.001	.021	.055	.049
	20.00	.047	.083	.026	.007	.020	.053	.057
	25.00	.069	.076	.014	.015	.031	.047	.047
	30.00	.079	.062	.001	.029	.045	.047	.042
	35.00	.071	.039	.022	.051	.065	.068	.036
	40.00	.077	.010	.020	.078	.091	.068	.051
	45.00	.074	.050	.104	.120	.132	.102	.059
	50.00	.056	.174	.178	.184	.189	.151	.070
	55.00	.014	.283	.266	.264	.271	.221	.088
	60.00	.014	.300	.303	.356	.321	.252	.082
	65.00	.006	.286	.273	.337	.318	.237	.070
	70.00	.337	.231	.304	.355	.326	.233	.057
	75.00	.681	.697	.388	.296	.281	.183	.083
80.00	.562	.701	.369	.298	.281	.164	.100	
85.00	.415	.668	.370	.298	.281	.156	.115	
90.00	.344	.611	.387	.305	.283	.152	.112	
95.00	.220	.525	.385	.307	.283	.152	.112	
LOWER SURFACE	1.25	.183	.102	.169	.268	.407	.509	.608
	2.50	.121	.076	.126	.197	.302	.356	.464
	5.00	.068	.048	.123	.123	.248	.290	.324
	7.50	.031	.087	.133	.158	.245	.269	.333
	10.00	.002	.096	.144	.179	.241	.225	.330
	15.00	.034	.117	.169	.225	.234	.253	.298
	20.00	.077	.136	.191	.239	.250	.277	.273
	25.00	.063	.155	.214	.240	.260	.279	.251
	30.00	.117	.173	.236	.247	.271	.283	.228
	35.00	.135	.196	.254	.257	.278	.283	.229
	40.00	.148	.214	.273	.257	.278	.274	.217
	45.00	.167	.243	.281	.255	.278	.270	.207
	50.00	.227	.270	.273	.285	.299	.289	.193
	55.00	.209	.285	.273	.285	.299	.284	.166
	60.00	.233	.327	.266	.274	.282	.244	.149
	65.00	.268	.336	.265	.279	.284	.213	.147
	70.00	.104	.104	.095	.210	.208	.203	.125
	75.00	.163	.094	.163	.206	.208	.147	.114
	80.00	.157	.100	.178	.196	.195	.138	.105
	85.00	.142	.111	.202	.208	.189	.132	.087
90.00	.129	.147	.211	.211	.194	.132	.088	
GAP		.756	.466	.298	.279	.203		
UPPER SURFACE	M = 0.85    α = 4.0°							
	.00	.247	.101	.081	.277	.106	.081	.066
	1.25	.251	.847	1.089	.930	.841	.884	.794
	2.50	.214	.717	.825	.717	.724	.688	.627
	5.00	.188	.403	.437	.409	.388	.325	.319
	7.50	.177	.364	.374	.333	.326	.290	.295
	10.00	.200	.338	.341	.277	.291	.252	.268
	15.00	.215	.301	.273	.239	.272	.212	.139
	20.00	.232	.282	.219	.178	.172	.156	.101
	25.00	.232	.255	.179	.146	.131	.119	.075
	30.00	.239	.220	.152	.100	.095	.081	.061
	35.00	.253	.229	.087	.057	.048	.040	.046
	40.00	.281	.095	.032	.009	.006	.009	.045
	45.00	.284	.001	.025	.051	.064	.063	.045
	50.00	.173	.113	.094	.109	.120	.114	.042
	55.00	.068	.125	.156	.154	.158	.145	.044
	60.00	.040	.177	.178	.218	.173	.151	.039
	65.00	.118	.108	.180	.208	.171	.141	.052
	70.00	.270	.055	.196	.216	.168	.135	.053
	75.00	.775	.698	.380	.299	.241	.168	.056
80.00	.648	.683	.380	.299	.241	.158	.063	
85.00	.489	.647	.380	.299	.241	.151	.069	
90.00	.457	.593	.384	.305	.241	.145	.063	
95.00	.314	.519	.378	.306	.241	.145	.063	
LOWER SURFACE	1.25	.336	.332	.345	.330	.323	.320	.255
	2.50	.307	.259	.269	.255	.244	.243	.167
	5.00	.274	.195	.183	.204	.185	.137	.090
	7.50	.217	.140	.133	.148	.100	.086	.015
	10.00	.178	.125	.101	.108	.064	.071	.015
	15.00	.143	.066	.081	.027	.021	.044	.018
	20.00	.087	.031	.008	.006	.023	.081	.018
	25.00	.085	.001	.026	.038	.055	.111	.016
	30.00	.033	.029	.066	.053	.113	.149	.016
	35.00	.001	.029	.066	.053	.113	.149	.016
	40.00	.017	.022	.116	.143	.163	.189	.016
	45.00	.041	.113	.155	.163	.177	.204	.016
	50.00	.107	.146	.183	.177	.191	.209	.016
	55.00	.093	.127	.173	.188	.196	.202	.016
	60.00	.117	.159	.198	.207	.199	.202	.016
	65.00	.128	.198	.198	.207	.199	.202	.016
	70.00	.223	.068	.099	.099	.130	.160	.016
	75.00	.064	.048	.138	.138	.138	.138	.016
	80.00	.081	.076	.131	.143	.158	.184	.016
	85.00	.076	.076	.131	.143	.158	.184	.016
90.00	.101	.143	.181	.181	.174	.184	.016	
GAP		.753	.519	.296	.280	.196		

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.85 $\alpha = 6.0^\circ$								
	.00	.242	.217	.209	.128	.474	.378	.304	
	1.25	.518	1.041	1.203	.731	.807	.628	.776	
	2.50	.460	1.026	.975	.680	.762	.500	.646	
	5.00	.392	.900	.791	.626	.720	.453	.552	
	7.50	.356	.794	.671	.573	.609	.434	.514	
	10.00	.330	.674	.599	.516	.656	.405	.453	
	15.00	.333	.487	.469	.443	.573	.361	.340	
	20.00	.340	.414	.382	.361	.478	.315	.253	
	25.00	.348	.367	.276	.289	.367	.264	.180	
	30.00	.333	.310	.211	.227	.251	.232	.133	
	35.00	.313	.243	.184	.173	.153	.195	.104	
	40.00	.307	.188	.096	.120	.071	.165	.083	
	45.00	.281	.060	.042	.067	.004	.132	.070	
	50.00	.240	.049	.010	.016	.057	.106	.068	
	55.00	.114	.143	.064	.030	.113	.088	.075	
	60.00	.012	.142	.097	.097	.147	.075	.073	
	65.00	.092	.092	.098	.078	.156	.069	.088	
	70.00	.223	.032	.088	.108	.191	.030	.092	
	75.00	.768	.715	.374	.307	.253	.201	.097	
	80.00	.649	.693	.381	.313	.259	.210	.092	
85.00	.516	.655	.381	.317	.260	.197	.090		
90.00	.448	.608	.383	.317	.260	.178	.085		
95.00	.351	.536	.376	.308	.248	.154	.075		
LOWER SURFACE	1.25	.390	.443	.448	.447	.434	.424	.377	
	2.50	.384	.369	.374	.357	.362	.345	.291	
	5.00	.352	.293	.286	.305	.269	.244	.204	
	7.50	.314	.240	.233	.249	.209	.187	.121	
	10.00	.270	.214	.197	.205	.168	.149	.082	
	15.00	.235	.148	.145	.128	.108	.097	.042	
	20.00	.178	.104	.092	.086	.060	.038	.078	
	25.00	.160	.068	.081	.048	.081	.005	.113	
	30.00	.113	.037	.017	.019	.014	.043	.131	
	35.00	.071	.005	.013	.013	.043	.081	.136	
	40.00	.050	.081	.041	.045	.073	.111	.142	
	45.00	.027	.057	.065	.071	.104	.141	.137	
	50.00	.038	.092	.093	.097	.123	.165	.135	
	55.00	.031	.114	.107	.119	.145	.171	.126	
	60.00	.056	.148	.136	.136	.152	.171	.109	
	65.00	.099	.187	.186	.168	.167	.160	.098	
	70.00	.150						.095	
	75.00	.167	.098	.027	.044	.077	.101	.075	
	80.00	.018	.081	.074	.096	.119	.095	.070	
	85.00	.040	.055	.103	.098	.132	.095	.066	
	90.00	.049	.094	.136	.138	.135	.100	.044	
95.00	.092	.144	.157	.145	.152	.095	.042		
GAP			.761	.540	.275	.300	.202		
UPPER SURFACE	M = 0.85 $\alpha = 8.0^\circ$								
	.00	.226	.518	.522	.039	.812	.634	.544	
	1.25	.667	1.207	.902	.838	.900	.574	.656	
	2.50	.624	1.177	.856	.782	.888	.523	.618	
	5.00	.566	1.147	.837	.741	.880	.498	.597	
	7.50	.529	1.105	.775	.697	.875	.489	.597	
	10.00	.500	1.055	.783	.653	.870	.476	.590	
	15.00	.486	.893	.632	.601	.845	.457	.552	
	20.00	.463	.710	.585	.588	.803	.440	.487	
	25.00	.468	.539	.486	.587	.747	.421	.373	
	30.00	.457	.391	.488	.532	.660	.418	.268	
	35.00	.429	.277	.364	.451	.535	.410	.209	
	40.00	.425	.187	.307	.355	.341	.415	.186	
	45.00	.401	.088	.207	.268	.262	.419	.188	
	50.00	.332	.009	.214	.193	.062	.421	.189	
	55.00	.171	.118	.177	.137	.014	.421	.201	
	60.00	.069	.183	.180	.063	.067	.400	.192	
	65.00	.029	.084	.145	.073	.092	.341	.198	
	70.00	.168	.016	.095	.008	.157	.298	.189	
	75.00	.740	.704	.397	.336	.570	.355	.174	
	80.00	.668	.686	.419	.343	.276	.366	.160	
85.00	.559	.659	.409	.342	.267	.282	.149		
90.00	.485	.623	.399	.327	.250	.218	.143		
95.00	.433	.559	.381	.298	.223	.171	.137		
LOWER SURFACE	1.25	.410	.506	.493	.497	.475	.473	.421	
	2.50	.438	.445	.431	.418	.421	.414	.353	
	5.00	.420	.376	.347	.368	.342	.323	.269	
	7.50	.399	.318	.298	.318	.282	.266	.188	
	10.00	.350	.292	.261	.268	.240	.243	.133	
	15.00	.315	.214	.203	.189	.178	.168	.089	
	20.00	.245	.170	.149	.142	.125	.107	.005	
	25.00	.225	.131	.105	.098	.082	.059	.069	
	30.00	.175	.094	.067	.068	.047	.016	.099	
	35.00	.130	.060	.039	.038	.016	.026	.111	
	40.00	.099	.030	.004	.000	.019	.057	.123	
	45.00	.076	.009	.018	.030	.049	.091	.180	
	50.00	.013	.045	.083	.060	.073	.121	.117	
	55.00	.014	.070	.070	.088	.100	.137	.110	
	60.00	.016	.108	.090	.104	.113	.147	.094	
	65.00	.059	.153	.130	.135	.135	.147	.087	
	70.00	.114						.086	
	75.00	.132	.121	.083	.004	.020	.018	.071	
	80.00	.003	.006	.047	.063	.078	.059	.067	
	85.00	.011	.060	.082	.073	.094	.062	.070	
	90.00	.029	.101	.118	.109	.099	.069	.060	
95.00	.081	.160	.133	.129	.120	.065	.068		
GAP			.756	.579	.293	.313	.296		

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
$M = 0.85 \quad \alpha = 11.3^\circ$							
UPPER SURFACE							
0.00	1.77	1.912	1.983	1.433	1.622	1.466	1.500
1.25	1.451	1.476	1.135	1.812	1.538	1.392	1.394
2.50	1.622	1.458	1.084	1.802	1.838	1.379	1.395
5.00	1.743	1.489	1.094	1.796	1.832	1.368	1.395
7.50	1.744	1.480	1.061	1.794	1.826	1.377	1.406
10.00	1.756	1.452	1.033	1.785	1.822	1.378	1.401
15.00	1.731	1.377	1.033	1.777	1.814	1.378	1.399
20.00	1.675	1.341	1.033	1.760	1.805	1.376	1.391
25.00	1.645	1.260	1.033	1.780	1.794	1.370	1.374
30.00	1.621	1.205	1.033	1.779	1.780	1.368	1.361
35.00	1.601	1.438	1.033	1.769	1.769	1.363	1.347
40.00	1.592	1.258	1.033	1.741	1.741	1.357	1.335
45.00	1.598	1.114	1.033	1.702	1.702	1.345	1.326
50.00	1.573	1.040	1.033	1.658	1.658	1.337	1.311
55.00	1.545	0.942	1.033	1.605	1.605	1.324	1.298
60.00	1.519	0.838	1.033	1.551	1.551	1.316	1.286
65.00	1.492	0.727	1.033	1.497	1.497	1.306	1.283
70.00	1.465	0.607	1.033	1.443	1.443	1.291	1.284
75.00	1.438	0.487	1.033	1.389	1.389	1.272	1.271
80.00	1.411	0.367	1.033	1.335	1.335	1.253	1.266
85.00	1.384	0.247	1.033	1.281	1.281	1.234	1.262
90.00	1.357	0.127	1.033	1.227	1.227	1.215	1.259
95.00	1.330	0.007	1.033	1.173	1.173	1.196	1.250
GAP	1.427	1.545	1.482	1.469	1.366	1.274	1.250
LOWER SURFACE							
1.25	1.422	1.567	1.516	1.532	1.508	1.489	1.445
2.50	1.469	1.544	1.506	1.504	1.487	1.468	1.402
5.00	1.530	1.489	1.447	1.463	1.427	1.389	1.326
7.50	1.538	1.437	1.404	1.410	1.375	1.340	1.257
10.00	1.599	1.406	1.365	1.362	1.334	1.318	1.195
15.00	1.452	1.334	1.308	1.293	1.275	1.234	1.090
20.00	1.374	1.284	1.250	1.242	1.216	1.173	1.012
25.00	1.340	1.240	1.206	1.192	1.170	1.121	0.950
30.00	1.288	1.200	1.166	1.156	1.131	1.076	0.905
35.00	1.239	1.161	1.131	1.117	1.094	1.026	0.856
40.00	1.201	1.128	1.095	1.081	1.056	0.981	0.811
45.00	1.172	1.088	1.063	1.044	1.018	0.957	0.787
50.00	1.15	1.047	1.028	1.010	0.984	0.928	0.758
55.00	1.11	1.018	1.001	0.984	0.957	0.901	0.731
60.00	1.071	0.974	0.957	0.939	0.912	0.856	0.686
65.00	1.031	0.934	0.917	0.899	0.872	0.816	0.646
70.00	1.045	0.948	0.931	0.913	0.886	0.830	0.660
75.00	1.077	1.179	1.118	1.112	1.072	1.017	0.847
80.00	1.076	1.047	1.012	1.001	0.972	0.917	0.747
85.00	1.049	1.003	0.931	0.935	0.916	0.861	0.691
90.00	1.014	0.961	0.888	0.893	0.874	0.819	0.649
95.00	1.004	1.135	1.082	1.141	1.203	1.197	1.169
GAP	1.004	1.733	1.695	1.502	1.429	1.257	1.169
$M = 0.85 \quad \alpha = 15.6^\circ$							
UPPER SURFACE							
0.00	1.889	1.282	1.042	1.829	1.843	1.482	1.532
1.25	1.628	1.468	1.993	1.662	1.538	1.471	1.469
2.50	1.856	1.441	1.978	1.658	1.840	1.471	1.465
5.00	1.035	1.420	1.011	1.644	1.840	1.461	1.463
7.50	1.057	1.395	1.000	1.633	1.842	1.473	1.468
10.00	1.036	1.371	0.998	1.625	1.842	1.473	1.460
15.00	1.998	1.298	0.972	1.614	1.845	1.473	1.457
20.00	1.907	1.269	0.939	1.619	1.845	1.473	1.456
25.00	1.798	1.229	0.913	1.614	1.845	1.473	1.453
30.00	1.661	1.184	0.870	1.608	1.845	1.473	1.456
35.00	1.593	1.186	0.847	1.593	1.845	1.473	1.450
40.00	1.631	1.080	0.809	1.582	1.845	1.473	1.447
45.00	1.681	0.974	0.773	1.578	1.845	1.473	1.442
50.00	1.694	0.873	0.737	1.573	1.845	1.473	1.436
55.00	1.559	0.743	0.707	1.511	1.845	1.473	1.423
60.00	1.422	0.615	0.692	1.560	1.845	1.473	1.421
65.00	1.307	0.529	0.683	1.526	1.845	1.473	1.416
70.00	1.101	0.483	0.610	1.538	1.845	1.473	1.416
75.00	1.757	0.959	0.683	1.538	1.845	1.473	1.416
80.00	1.635	0.723	0.641	1.537	1.845	1.473	1.416
85.00	1.555	0.470	0.628	1.526	1.845	1.473	1.416
90.00	1.408	0.338	0.619	1.511	1.845	1.473	1.416
95.00	1.384	0.584	0.503	1.571	1.845	1.473	1.429
1.25	1.477	0.619	0.535	1.557	1.845	1.473	1.427
2.50	1.626	0.558	0.501	1.535	1.845	1.473	1.427
5.00	1.693	0.528	0.470	1.490	1.845	1.473	1.427
7.50	1.682	0.461	0.417	1.450	1.845	1.473	1.427
10.00	1.682	0.414	0.362	1.384	1.845	1.473	1.427
15.00	1.619	0.363	0.311	1.338	1.845	1.473	1.427
20.00	1.476	0.321	0.271	1.288	1.845	1.473	1.427
25.00	1.425	0.277	0.229	1.238	1.845	1.473	1.427
30.00	1.368	0.231	0.190	1.188	1.845	1.473	1.427
35.00	1.311	0.199	0.154	1.138	1.845	1.473	1.427
40.00	1.254	0.151	0.112	1.088	1.845	1.473	1.427
45.00	1.199	0.119	0.078	1.038	1.845	1.473	1.427
50.00	1.142	0.078	0.041	0.988	1.845	1.473	1.427
55.00	1.085	0.038	0.005	0.938	1.845	1.473	1.427
60.00	1.028	0.002	0.000	0.888	1.845	1.473	1.427
65.00	0.971	0.000	0.000	0.838	1.845	1.473	1.427
70.00	0.914	0.000	0.000	0.788	1.845	1.473	1.427
75.00	0.857	0.000	0.000	0.738	1.845	1.473	1.427
80.00	0.800	0.000	0.000	0.688	1.845	1.473	1.427
85.00	0.743	0.000	0.000	0.638	1.845	1.473	1.427
90.00	0.686	0.000	0.000	0.588	1.845	1.473	1.427
95.00	0.629	0.000	0.000	0.538	1.845	1.473	1.427
GAP	0.443	0.789	0.751	0.513	0.566	0.390	0.358
LOWER SURFACE							
1.25	1.384	1.584	1.503	1.571	1.479	1.463	1.429
2.50	1.477	1.569	1.495	1.557	1.507	1.492	1.427
5.00	1.626	1.558	1.501	1.535	1.477	1.445	1.380
7.50	1.693	1.528	1.470	1.490	1.437	1.401	1.310
10.00	1.682	1.461	1.417	1.450	1.399	1.377	1.263
15.00	1.619	1.414	1.362	1.384	1.347	1.300	1.152
20.00	1.476	1.363	1.311	1.338	1.307	1.240	1.043
25.00	1.425	1.321	1.271	1.288	1.263	1.188	0.908
30.00	1.368	1.277	1.229	1.238	1.193	1.138	0.858
35.00	1.311	1.231	1.180	1.188	1.150	1.080	0.816
40.00	1.254	1.199	1.142	1.138	1.111	1.032	0.771
45.00	1.199	1.151	1.098	1.088	1.061	0.981	0.711
50.00	1.142	1.109	1.056	1.046	1.019	0.940	0.666
55.00	1.085	1.062	1.009	0.999	0.972	0.901	0.611
60.00	1.028	1.005	0.952	0.942	0.915	0.844	0.554
65.00	0.971	0.948	0.895	0.885	0.858	0.787	0.497
70.00	0.914	0.891	0.838	0.828	0.801	0.730	0.440
75.00	0.857	0.834	0.781	0.771	0.744	0.673	0.393
80.00	0.800	0.777	0.724	0.714	0.687	0.616	0.336
85.00	0.743	0.720	0.667	0.657	0.630	0.559	0.279
90.00	0.686	0.663	0.610	0.600	0.573	0.502	0.229
95.00	0.629	0.606	0.553	0.543	0.516	0.445	0.179
GAP	0.443	0.789	0.751	0.513	0.566	0.390	0.358

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.85    α = 19.8°								
	.00	.028	1.085	.953	.821	.650	.578	.568	
	1.25	.643	1.067	.867	.711	.646	.573	.536	
	2.50	.842	1.058	.834	.705	.643	.570	.533	
	5.00	1.092	1.028	.837	.699	.640	.561	.531	
	7.50	1.090	1.020	.837	.698	.640	.571	.535	
	10.00	1.075	1.012	.836	.698	.640	.571	.522	
	15.00	1.065	.988	.827	.688	.637	.571	.515	
	20.00	1.039	.978	.819	.683	.632	.564	.515	
	25.00	.961	.966	.806	.680	.625	.552	.508	
	30.00	.907	.953	.794	.678	.623	.552	.509	
	35.00	.849	.943	.783	.670	.613	.544	.511	
	40.00	.808	.926	.766	.663	.607	.539	.507	
	45.00	.771	.907	.757	.657	.598	.539	.506	
	50.00	.761	.891	.749	.649	.600	.561	.498	
	55.00	.699	.870	.741	.637	.604	.566	.488	
	60.00	.654	.865	.727	.619	.599	.607	.495	
	LOWER SURFACE	65.00	.551	.866	.689	.595	.619	.589	.466
70.00		.571	.887	.674	.586	.631	.611	.460	
75.00		.757	.745	.684	.591	.637	.649	.451	
80.00		.647	.731	.678	.589	.635	.652	.441	
85.00		.613	.707	.670	.584	.630	.646	.428	
90.00		.527	.695	.661	.590	.616	.628	.410	
95.00									
1.25		.245	.569	.470	.553	.426	.409	.387	
2.50		.439	.656	.575	.587	.507	.497	.435	
5.00		.691	.682	.585	.533	.512	.482	.416	
7.50		.784	.635	.568	.533	.485	.448	.369	
10.00		.745	.611	.539	.504	.452	.436	.318	
15.00		.700	.549	.489	.446	.405	.363	.213	
20.00		.621	.501	.435	.394	.348	.306	.117	
25.00		.573	.450	.390	.347	.302	.253	.048	
30.00		.523	.407	.347	.302	.255	.196	.023	
35.00		.467	.362	.302	.256	.211	.141	.083	
40.00		.420	.323	.260	.213	.166	.092	.116	
45.00	.386	.277	.219	.166	.118	.039	.147		
50.00	.319	.229	.173	.119	.071	.019	.170		
55.00	.309	.190	.131	.071	.026	.064	.194		
60.00	.259	.141	.089	.017	.019	.110	.110		
65.00	.213	.068	.083	.051	.095	.140	.235		
70.00	.106						.250		
75.00	.066	.282	.194	.138	.070	.057	.254		
80.00	.214	.140	.047	.018	.058	.115	.283		
85.00	.158	.047	.083	.071	.126	.177	.294		
90.00	.090	.017	.106	.150	.188	.271	.295		
95.00	.048	.118	.183	.225	.261	.292	.319		
GAP			.732	.749	.591	.670	.414		
UPPER SURFACE	M = 0.85    α = 26.0°								
	.00	.210	.802	.825	.773	.731	.869	.624	
	1.25	.551	.801	.809	.754	.731	.658	.609	
	2.50	.845	.797	.789	.751	.729	.649	.607	
	5.00	.834	.803	.789	.751	.729	.627	.601	
	7.50	.819	.806	.798	.751	.726	.633	.602	
	10.00	.809	.806	.802	.757	.726	.633	.595	
	15.00	.796	.803	.800	.747	.726	.634	.591	
	20.00	.793	.812	.797	.743	.723	.631	.589	
	25.00	.792	.818	.793	.744	.719	.614	.591	
	30.00	.797	.823	.791	.742	.718	.619	.591	
	35.00	.796	.826	.789	.741	.718	.613	.592	
	40.00	.801	.831	.781	.741	.720	.615	.592	
	45.00	.804	.834	.779	.748	.723	.619	.600	
	50.00	.807	.831	.777	.751	.749	.653	.600	
	55.00	.805	.824	.779	.750	.755	.681	.596	
	60.00	.798	.812	.774	.734	.727	.716	.584	
	65.00	.778	.798	.766	.731	.705	.747	.584	
70.00	.719	.781	.755	.731	.724	.734	.580		
75.00	.636	.772	.731	.685	.621	.535	.548		
80.00	.774	.779	.733	.686	.629	.550	.537		
85.00	.758	.774	.729	.684	.629	.549	.526		
90.00	.747	.770	.727	.679	.623	.548	.526		
95.00	.726	.760	.722	.682	.610	.531	.511		
LOWER SURFACE	1.25	.054	.512	.379	.465	.312	.277	.279	
	2.50	.328	.677	.568	.556	.479	.466	.404	
	5.00	.735	.737	.637	.619	.541	.505	.442	
	7.50	.833	.736	.639	.590	.543	.502	.415	
	10.00	.815	.722	.629	.582	.527	.499	.382	
	15.00	.809	.675	.593	.543	.492	.447	.295	
	20.00	.750	.636	.553	.504	.448	.394	.198	
	25.00	.704	.590	.511	.459	.404	.345	.130	
	30.00	.660	.546	.470	.418	.362	.293	.059	
	35.00	.606	.503	.429	.371	.318	.240	.001	
	40.00	.563	.459	.384	.327	.275	.187	.051	
	45.00	.525	.415	.340	.288	.234	.132	.091	
	50.00	.463	.366	.294	.234	.178	.074	.184	
	55.00	.445	.322	.247	.185	.123	.018	.160	
	60.00	.393	.268	.193	.125	.072	.033	.184	
	65.00	.346	.219	.121	.051	.006	.078	.216	
	70.00	.230						.245	
	75.00	.200	.375	.271	.220	.152	.019	.265	
80.00	.106	.228	.186	.064	.011	.116	.299		
85.00	.137	.138	.044	.003	.070	.184	.322		
90.00	.165	.048	.042	.090	.146	.260	.340		
95.00	.097	.075	.131	.188	.236	.311	.380		
GAP			.660	.721	.598	.717	.459		

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 0.90 \quad \alpha = 0.0^\circ$								
	.00	.267	.525	.481	.783	.484	.469	.348	
	1.25	.267	.525	.481	.783	.484	.469	.348	
	2.50	.267	.525	.481	.783	.484	.469	.348	
	5.00	.267	.525	.481	.783	.484	.469	.348	
	7.50	.267	.525	.481	.783	.484	.469	.348	
	10.00	.267	.525	.481	.783	.484	.469	.348	
	15.00	.267	.525	.481	.783	.484	.469	.348	
	20.00	.267	.525	.481	.783	.484	.469	.348	
	25.00	.267	.525	.481	.783	.484	.469	.348	
	30.00	.267	.525	.481	.783	.484	.469	.348	
	35.00	.267	.525	.481	.783	.484	.469	.348	
	40.00	.267	.525	.481	.783	.484	.469	.348	
	45.00	.267	.525	.481	.783	.484	.469	.348	
	50.00	.267	.525	.481	.783	.484	.469	.348	
	55.00	.267	.525	.481	.783	.484	.469	.348	
	60.00	.267	.525	.481	.783	.484	.469	.348	
	65.00	.267	.525	.481	.783	.484	.469	.348	
70.00	.267	.525	.481	.783	.484	.469	.348		
75.00	.267	.525	.481	.783	.484	.469	.348		
80.00	.267	.525	.481	.783	.484	.469	.348		
85.00	.267	.525	.481	.783	.484	.469	.348		
90.00	.267	.525	.481	.783	.484	.469	.348		
95.00	.267	.525	.481	.783	.484	.469	.348		
LOWER SURFACE	$M = 0.90 \quad \alpha = 0.0^\circ$								
	.00	.267	.525	.481	.783	.484	.469	.348	
	1.25	.267	.525	.481	.783	.484	.469	.348	
	2.50	.267	.525	.481	.783	.484	.469	.348	
	5.00	.267	.525	.481	.783	.484	.469	.348	
	7.50	.267	.525	.481	.783	.484	.469	.348	
	10.00	.267	.525	.481	.783	.484	.469	.348	
	15.00	.267	.525	.481	.783	.484	.469	.348	
	20.00	.267	.525	.481	.783	.484	.469	.348	
	25.00	.267	.525	.481	.783	.484	.469	.348	
	30.00	.267	.525	.481	.783	.484	.469	.348	
	35.00	.267	.525	.481	.783	.484	.469	.348	
	40.00	.267	.525	.481	.783	.484	.469	.348	
	45.00	.267	.525	.481	.783	.484	.469	.348	
	50.00	.267	.525	.481	.783	.484	.469	.348	
	55.00	.267	.525	.481	.783	.484	.469	.348	
	60.00	.267	.525	.481	.783	.484	.469	.348	
	65.00	.267	.525	.481	.783	.484	.469	.348	
70.00	.267	.525	.481	.783	.484	.469	.348		
75.00	.267	.525	.481	.783	.484	.469	.348		
80.00	.267	.525	.481	.783	.484	.469	.348		
85.00	.267	.525	.481	.783	.484	.469	.348		
90.00	.267	.525	.481	.783	.484	.469	.348		
95.00	.267	.525	.481	.783	.484	.469	.348		
UPPER SURFACE	$M = 0.90 \quad \alpha = 4.0^\circ$								
	.00	.265	.525	.481	.783	.484	.469	.348	
	1.25	.265	.525	.481	.783	.484	.469	.348	
	2.50	.265	.525	.481	.783	.484	.469	.348	
	5.00	.265	.525	.481	.783	.484	.469	.348	
	7.50	.265	.525	.481	.783	.484	.469	.348	
	10.00	.265	.525	.481	.783	.484	.469	.348	
	15.00	.265	.525	.481	.783	.484	.469	.348	
	20.00	.265	.525	.481	.783	.484	.469	.348	
	25.00	.265	.525	.481	.783	.484	.469	.348	
	30.00	.265	.525	.481	.783	.484	.469	.348	
	35.00	.265	.525	.481	.783	.484	.469	.348	
	40.00	.265	.525	.481	.783	.484	.469	.348	
	45.00	.265	.525	.481	.783	.484	.469	.348	
	50.00	.265	.525	.481	.783	.484	.469	.348	
	55.00	.265	.525	.481	.783	.484	.469	.348	
	60.00	.265	.525	.481	.783	.484	.469	.348	
	65.00	.265	.525	.481	.783	.484	.469	.348	
70.00	.265	.525	.481	.783	.484	.469	.348		
75.00	.265	.525	.481	.783	.484	.469	.348		
80.00	.265	.525	.481	.783	.484	.469	.348		
85.00	.265	.525	.481	.783	.484	.469	.348		
90.00	.265	.525	.481	.783	.484	.469	.348		
95.00	.265	.525	.481	.783	.484	.469	.348		
LOWER SURFACE	$M = 0.90 \quad \alpha = 4.0^\circ$								
	.00	.265	.525	.481	.783	.484	.469	.348	
	1.25	.265	.525	.481	.783	.484	.469	.348	
	2.50	.265	.525	.481	.783	.484	.469	.348	
	5.00	.265	.525	.481	.783	.484	.469	.348	
	7.50	.265	.525	.481	.783	.484	.469	.348	
	10.00	.265	.525	.481	.783	.484	.469	.348	
	15.00	.265	.525	.481	.783	.484	.469	.348	
	20.00	.265	.525	.481	.783	.484	.469	.348	
	25.00	.265	.525	.481	.783	.484	.469	.348	
	30.00	.265	.525	.481	.783	.484	.469	.348	
	35.00	.265	.525	.481	.783	.484	.469	.348	
	40.00	.265	.525	.481	.783	.484	.469	.348	
	45.00	.265	.525	.481	.783	.484	.469	.348	
	50.00	.265	.525	.481	.783	.484	.469	.348	
	55.00	.265	.525	.481	.783	.484	.469	.348	
	60.00	.265	.525	.481	.783	.484	.469	.348	
	65.00	.265	.525	.481	.783	.484	.469	.348	
70.00	.265	.525	.481	.783	.484	.469	.348		
75.00	.265	.525	.481	.783	.484	.469	.348		
80.00	.265	.525	.481	.783	.484	.469	.348		
85.00	.265	.525	.481	.783	.484	.469	.348		
90.00	.265	.525	.481	.783	.484	.469	.348		
95.00	.265	.525	.481	.783	.484	.469	.348		



TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:											
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2					
UPPER SURFACE	$M = 0.90 \quad \alpha = 8.0^\circ$													
	.00	.244	-	.093	-	.195	-	.191	-	.426	-	.318	-	.266
	1.25	.345	-	.972	-	1.262	-	1.187	-	.829	-	.636	-	.873
	2.50	.318	-	.862	-	1.192	-	1.173	-	.813	-	.500	-	.724
	5.00	.292	-	.812	-	1.181	-	1.086	-	.760	-	.446	-	.598
	7.50	.277	-	.717	-	.960	-	.978	-	.721	-	.431	-	.561
	10.00	.297	-	.632	-	.784	-	.739	-	.692	-	.412	-	.526
	15.00	.310	-	.492	-	.495	-	.411	-	.599	-	.374	-	.434
	20.00	.313	-	.434	-	.357	-	.271	-	.504	-	.357	-	.301
	25.00	.334	-	.412	-	.288	-	.209	-	.402	-	.299	-	.203
	30.00	.335	-	.407	-	.254	-	.169	-	.293	-	.273	-	.151
	35.00	.339	-	.388	-	.214	-	.128	-	.194	-	.243	-	.126
	40.00	.335	-	.171	-	.073	-	.078	-	.116	-	.218	-	.109
	45.00	.348	-	.086	-	.026	-	.017	-	.046	-	.192	-	.102
	50.00	.357	-	.088	-	.023	-	.044	-	.016	-	.167	-	.099
	55.00	.185	-	.123	-	.022	-	.103	-	.064	-	.155	-	.106
	60.00	.083	-	.123	-	.023	-	.175	-	.095	-	.147	-	.104
	65.00	.094	-	.011	-	.081	-	.181	-	.104	-	.127	-	.113
	70.00	.224	-	.008	-	.103	-	.200	-	.132	-	.086	-	.109
	75.00	.744	-	.739	-	.417	-	.321	-	.254	-	.231	-	.114
80.00	.606	-	.717	-	.420	-	.321	-	.260	-	.241	-	.107	
85.00	.535	-	.675	-	.414	-	.321	-	.260	-	.220	-	.101	
90.00	.483	-	.626	-	.406	-	.322	-	.259	-	.192	-	.094	
95.00	.410	-	.555	-	.399	-	.314	-	.250	-	.163	-	.083	
LOWER SURFACE	1.25	.401	.447	.440	.431	.432	.425	.371						
	2.50	.397	.371	.352	.337	.359	.346	.284						
	5.00	.368	.299	.276	.259	.270	.244	.196						
	7.50	.328	.248	.226	.219	.211	.186	.116						
	10.00	.279	.221	.194	.180	.168	.168	.052						
	15.00	.244	.134	.084	.078	.114	.094	.064						
	20.00	.182	.120	.040	.037	.020	.035	.124						
	25.00	.169	.072	.003	.003	.017	.013	.170						
	30.00	.118	.042	.003	.005	.017	.052	.176						
	35.00	.076	.006	.024	.026	.030	.097	.175						
	40.00	.034	.018	.059	.062	.082	.136	.171						
	45.00	.027	.055	.079	.093	.114	.176	.171						
	50.00	.034	.092	.105	.119	.137	.207	.165						
	55.00	.027	.115	.119	.116	.163	.218	.151						
	60.00	.057	.171	.136	.155	.169	.211	.131						
	65.00	.097	.200	.164	.190	.182	.194	.117						
	70.00	.139	-	.082	-	.053	-	.133	.084					
	75.00	.222	-	.086	-	.126	-	.119	.074					
	80.00	.034	-	.061	-	.123	-	.111	.067					
	85.00	.049	-	.095	-	.140	-	.111	.050					
90.00	.085	-	.148	-	.173	-	.109	.045						
95.00	.101	-	.768	-	.309	-	.293							
GAP														
UPPER SURFACE	$M = 0.90 \quad \alpha = 7.9^\circ$													
	.00	.265	-	.348	-	.398	-	.456	-	.484	-	.577	-	.507
	1.25	.340	-	1.116	-	1.308	-	1.301	-	.802	-	.577	-	.700
	2.50	.304	-	1.101	-	1.218	-	1.290	-	.799	-	.528	-	.661
	5.00	.277	-	1.069	-	1.117	-	1.223	-	.780	-	.506	-	.631
	7.50	.277	-	.997	-	.977	-	1.142	-	.785	-	.501	-	.632
	10.00	.277	-	.934	-	.877	-	.999	-	.780	-	.490	-	.636
	15.00	.430	-	.779	-	.723	-	.856	-	.769	-	.469	-	.615
	20.00	.415	-	.613	-	.580	-	.857	-	.753	-	.450	-	.547
	25.00	.421	-	.496	-	.474	-	.804	-	.723	-	.431	-	.485
	30.00	.415	-	.457	-	.383	-	.779	-	.680	-	.421	-	.398
	35.00	.403	-	.408	-	.326	-	.701	-	.654	-	.396	-	.335
	40.00	.409	-	.381	-	.281	-	.658	-	.622	-	.380	-	.269
	45.00	.422	-	.348	-	.250	-	.604	-	.576	-	.370	-	.208
	50.00	.461	-	.308	-	.200	-	.557	-	.528	-	.361	-	.214
	55.00	.290	-	.251	-	.130	-	.503	-	.500	-	.348	-	.200
	60.00	.120	-	.105	-	.124	-	.403	-	.400	-	.328	-	.194
	65.00	.033	-	.002	-	.132	-	.335	-	.335	-	.307	-	.190
	70.00	.172	-	.011	-	.083	-	.281	-	.281	-	.281	-	.175
	75.00	.657	-	.721	-	.441	-	.330	-	.285	-	.337	-	.167
80.00	.607	-	.701	-	.448	-	.330	-	.285	-	.300	-	.160	
85.00	.551	-	.666	-	.427	-	.330	-	.283	-	.288	-	.158	
90.00	.471	-	.621	-	.415	-	.324	-	.267	-	.282	-	.149	
95.00	.444	-	.558	-	.404	-	.307	-	.230	-	.230	-		
LOWER SURFACE	1.25	.431	.521	.490	.475	.474	.469	.418						
	2.50	.464	.456	.388	.398	.480	.410	.351						
	5.00	.443	.388	.380	.357	.435	.314	.267						
	7.50	.419	.352	.358	.301	.479	.260	.188						
	10.00	.371	.332	.362	.260	.438	.238	.187						
	15.00	.371	.332	.362	.260	.438	.238	.017						
	20.00	.371	.332	.362	.260	.438	.238	.098						
	25.00	.371	.332	.362	.260	.438	.238	.107						
	30.00	.371	.332	.362	.260	.438	.238	.140						
	35.00	.371	.332	.362	.260	.438	.238	.158						
	40.00	.371	.332	.362	.260	.438	.238	.156						
	45.00	.371	.332	.362	.260	.438	.238	.153						
	50.00	.371	.332	.362	.260	.438	.238	.142						
	55.00	.371	.332	.362	.260	.438	.238	.127						
	60.00	.371	.332	.362	.260	.438	.238	.114						
	65.00	.371	.332	.362	.260	.438	.238	.105						
	70.00	.371	.332	.362	.260	.438	.238	.103						
	75.00	.371	.332	.362	.260	.438	.238	.090						
	80.00	.371	.332	.362	.260	.438	.238	.083						
	85.00	.371	.332	.362	.260	.438	.238	.082						
90.00	.371	.332	.362	.260	.438	.238	.076							
95.00	.371	.332	.362	.260	.438	.238	.081							
GAP														

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:							
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
M = 0.90    α = 11.3°								
UPPER SURFACE	.00	.223	.715	.771	.333	.747	.495	.445
	1.25	.335	1.326	1.147	1.073	.478	.441	.364
	2.50	.498	1.308	1.060	1.058	.473	.429	.365
	5.00	.617	1.346	1.051	1.034	.470	.420	.363
	7.50	.658	1.323	1.014	1.040	.465	.425	.360
	10.00	.646	1.285	.989	1.039	.459	.422	.358
	15.00	.634	1.198	.904	1.019	.453	.410	.351
	20.00	.598	1.148	.815	.989	.441	.411	.344
	25.00	.573	1.063	.768	.973	.430	.395	.340
	30.00	.559	.891	.717	.941	.424	.395	.336
	35.00	.543	.560	.678	.913	.419	.389	.329
	40.00	.540	.465	.658	.869	.409	.378	.323
	45.00	.547	.217	.648	.791	.392	.365	.316
	50.00	.576	.029	.624	.681	.369	.355	.310
	55.00	.427	.050	.591	.577	.343	.343	.300
	60.00	.256	.040	.544	.451	.310	.334	.291
	65.00	.087	.056	.488	.414	.292	.324	.289
	70.00	.184	.093	.399	.375	.298	.315	.284
LOWER SURFACE	75.00	1.009	.748	.517	.444	.295	.295	.268
	80.00	.691	.733	.548	.473	.290	.303	.261
	85.00	.568	.706	.508	.453	.286	.311	.258
	90.00	.531	.665	.467	.424	.282	.302	.254
	95.00	.466	.603	.427	.383	.274	.297	.251
	GAP							
	1.25	.432	.589	.535	.541	.503	.500	.462
	2.50	.505	.557	.515	.496	.487	.480	.418
	5.00	.586	.501	.451	.453	.425	.407	.348
	7.50	.561	.447	.404	.403	.376	.354	.310
	10.00	.521	.418	.368	.369	.333	.332	.289
	15.00	.473	.346	.312	.308	.275	.251	.210
	20.00	.490	.297	.253	.241	.216	.188	.160
	25.00	.355	.253	.207	.188	.172	.135	.107
	30.00	.306	.210	.168	.152	.131	.089	.095
	35.00	.355	.172	.133	.114	.093	.041	.133
	40.00	.316	.140	.096	.077	.057	.008	.149
	45.00	.187	.100	.065	.041	.016	.054	.167
50.00	.130	.056	.038	.006	.017	.096	.174	
55.00	.126	.024	.001	.023	.048	.129	.179	
60.00	.083	.022	.032	.058	.078	.159	.179	
65.00	.044	.071	.083	.105	.129	.157	.189	
70.00	.023						.186	
75.00	.093	.192	.121	.074	.046	.100	.181	
80.00	.080	.057	.089	.043	.051	.127	.190	
85.00	.037	.012	.052	.049	.105	.168	.190	
90.00	.024	.063	.093	.093	.135	.217	.186	
95.00	.006	.146	.107	.138	.180	.220	.197	
GAP		.746	.695	.393	.513	.274		
M = 0.90    α = 15.6°								
UPPER SURFACE	.00	.188	1.094	1.035	.851	.533	.489	.535
	1.25	.503	1.502	.986	.741	.527	.489	.475
	2.50	.728	1.473	.925	.738	.532	.489	.473
	5.00	.895	1.490	.951	.730	.543	.481	.475
	7.50	.931	1.501	.950	.724	.548	.482	.481
	10.00	.918	1.487	.951	.718	.550	.483	.473
	15.00	.898	1.409	.950	.695	.560	.493	.467
	20.00	.829	1.357	.937	.684	.564	.493	.466
	25.00	.773	1.269	.920	.687	.566	.484	.467
	30.00	.734	1.197	.911	.670	.566	.489	.466
	35.00	.697	1.123	.899	.653	.555	.486	.471
	40.00	.671	1.006	.879	.639	.549	.480	.466
	45.00	.621	.850	.861	.624	.543	.478	.461
	50.00	.546	.689	.888	.611	.537	.470	.456
	55.00	.462	.544	.793	.601	.529	.470	.449
	60.00	.367	.528	.756	.551	.517	.472	.437
	65.00	.267	.659	.755	.598	.509	.479	.443
	70.00	.055	.467	.688	.553	.494	.477	.438
75.00	1.160	.589	.629	.566	.492	.466	.417	
80.00	.821	.540	.629	.573	.483	.442	.392	
85.00	.691	.584	.657	.569	.496	.446	.390	
90.00	.699	.746	.641	.559	.495	.438	.373	
95.00	.559	.536	.631	.550	.487	.421	.351	
LOWER SURFACE	1.25	.359	.610	.530	.573	.489	.465	.439
	2.50	.508	.632	.570	.536	.512	.494	.439
	5.00	.666	.605	.541	.535	.479	.446	.392
	7.50	.709	.562	.507	.487	.440	.404	.329
	10.00	.665	.533	.478	.446	.401	.384	.274
	15.00	.618	.464	.418	.379	.349	.306	.264
	20.00	.528	.415	.363	.324	.290	.244	.205
	25.00	.485	.364	.313	.284	.243	.190	.164
	30.00	.430	.323	.273	.244	.197	.138	.103
	35.00	.378	.283	.234	.199	.154	.083	.131
	40.00	.333	.244	.194	.159	.112	.034	.168
	45.00	.300	.200	.158	.115	.066	.022	.191
	50.00	.238	.136	.119	.074	.027	.076	.204
	55.00	.230	.119	.085	.034	.016	.130	.214
	60.00	.161	.070	.046	.010	.083	.170	.231
	65.00	.140	.009	.016	.074	.119	.186	.260
	70.00	.048						.268
	75.00	.012	.238	.194	.114	.039	.111	.267
80.00	.168	.117	.085	.039	.078	.145	.291	
85.00	.117	.049	.008	.078	.148	.218	.288	
90.00	.068	.006	.076	.144	.211	.303	.280	
95.00	.036	.067	.137	.213	.289	.385	.289	
GAP		.793	.741	.540	.609	.422		

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.90    α = 19.8°							
	.00	.019	1.189	.942	.806	.647	.588	.634
	1.25	.608	1.111	.884	.709	.640	.582	.607
	2.50	.814	1.106	.854	.708	.640	.579	.601
	5.00	1.130	1.094	.872	.698	.639	.571	.601
	7.50	1.126	1.086	.861	.696	.636	.572	.600
	10.00	1.079	1.066	.857	.698	.636	.572	.591
	15.00	1.059	1.035	.859	.681	.636	.580	.586
	20.00	.985	1.028	.835	.678	.633	.580	.584
	25.00	.917	1.008	.821	.678	.628	.570	.583
	30.00	.848	.993	.808	.668	.627	.576	.585
	35.00	.782	.977	.796	.666	.620	.569	.586
	40.00	.752	.953	.781	.663	.613	.562	.584
	45.00	.730	.927	.767	.658	.610	.556	.582
	50.00	.733	.903	.751	.653	.602	.559	.579
	55.00	.663	.877	.739	.648	.593	.570	.573
	60.00	.597	.877	.723	.574	.592	.589	.561
65.00	.508	.818	.728	.640	.596	.613	.567	
70.00	.317	.837	.691	.618	.657	.604	.560	
75.00	.987	.784	.685	.617	.659	.678	.566	
80.00	.810	.785	.685	.617	.659	.678	.566	
85.00	.656	.729	.691	.615	.671	.686	.513	
90.00	.626	.696	.683	.607	.667	.686	.498	
95.00	.511	.680	.674	.605	.655	.669	.482	
LOWER SURFACE	1.25	.263	.604	.498	.578	.442	.416	.423
	2.50	.479	.682	.596	.585	.521	.502	.477
	5.00	.739	.690	.605	.585	.526	.490	.463
	7.50	.815	.662	.583	.549	.500	.459	.411
	10.00	.770	.633	.560	.518	.467	.446	.363
	15.00	.727	.575	.512	.463	.423	.376	.285
	20.00	.647	.530	.487	.418	.366	.319	.134
	25.00	.601	.478	.411	.366	.328	.282	.061
	30.00	.550	.438	.371	.329	.287	.242	.020
	35.00	.485	.394	.329	.281	.239	.190	.085
	40.00	.450	.354	.289	.237	.190	.143	.131
	45.00	.416	.308	.249	.190	.143	.093	.170
	50.00	.382	.261	.207	.143	.097	.007	.194
	55.00	.341	.222	.164	.099	.049	.058	.220
	60.00	.291	.173	.117	.049	.004	.118	.248
	65.00	.247	.105	.044	.019	.067	.139	.287
	70.00	.140						.310
75.00	.092	.385	.232	.166	.095	.042	.326	
80.00	.246	.184	.085	.018	.038	.124	.359	
85.00	.182	.107	.014	.040	.108	.213	.377	
90.00	.127	.036	.063	.117	.175	.295	.385	
95.00	.086	.060	.134	.190	.242	.338	.401	
GAP			.701	.718	.584	.675	.443	
UPPER SURFACE	M = 0.90    α = 26.1°							
	.00	.173	.805	.885	.780	.743	.961	.628
	1.25	.465	.798	.808	.752	.738	.681	.609
	2.50	.841	.793	.786	.758	.731	.669	.603
	5.00	.836	.799	.805	.751	.733	.636	.583
	7.50	.825	.801	.796	.750	.733	.643	.589
	10.00	.815	.807	.801	.743	.733	.644	.594
	15.00	.801	.801	.797	.750	.732	.644	.588
	20.00	.790	.812	.796	.747	.736	.648	.587
	25.00	.790	.817	.795	.753	.748	.636	.593
	30.00	.789	.817	.794	.746	.744	.648	.591
	35.00	.793	.828	.786	.747	.746	.643	.597
	40.00	.797	.832	.779	.746	.746	.648	.598
	45.00	.803	.832	.777	.746	.746	.648	.603
	50.00	.799	.825	.764	.747	.749	.653	.602
	55.00	.794	.823	.764	.771	.736	.724	.590
	60.00	.763	.800	.741	.733	.699	.730	.578
65.00	.672	.798	.743	.736	.719	.752	.576	
70.00	.672	.775	.735	.704	.657	.682	.571	
75.00	.786	.779	.743	.705	.669	.693	.560	
80.00	.772	.772	.740	.705	.669	.694	.544	
85.00	.762	.769	.737	.708	.664	.686	.533	
90.00	.741	.762	.729	.698	.651	.674	.514	
LOWER SURFACE	1.25	.088	.548	.419	.483	.338	.291	.308
	2.50	.370	.705	.684	.578	.488	.422	.428
	5.00	.803	.765	.682	.638	.563	.486	.466
	7.50	.866	.761	.671	.613	.563	.483	.445
	10.00	.846	.751	.656	.608	.550	.488	.416
	15.00	.840	.705	.626	.570	.516	.470	.340
	20.00	.780	.665	.583	.527	.473	.424	.242
	25.00	.737	.620	.543	.486	.431	.371	.177
	30.00	.691	.576	.502	.447	.390	.324	.104
	35.00	.637	.532	.462	.408	.347	.274	.080
	40.00	.594	.495	.419	.358	.305	.221	.009
	45.00	.558	.448	.375	.314	.256	.170	.046
	50.00	.501	.400	.332	.266	.211	.109	.081
	55.00	.480	.359	.290	.219	.161	.084	.118
	60.00	.430	.307	.233	.163	.109	.003	.145
	65.00	.388	.234	.187	.093	.037		.175
	70.00	.267						.214
75.00	.233	.415	.315	.256	.188	.108	.246	
80.00	.241	.270	.166	.100	.083	.105	.264	
85.00	.275	.276	.094	.044	.087	.145	.309	
90.00	.206	.097	.007	.042	.109	.223	.340	
95.00	.141	.019	.075	.129	.186	.296	.371	
GAP			.608	.662	.571	.682	.450	

CONFIDENTIAL

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.94    α = -0.3°							
	.00	.282	.539	.409	.790	.462	.462	.321
	1.25	.122	.012	.023	.048	.155	.284	.201
	2.50	.114	.010	.012	.037	.073	.123	.130
	3.75	.108	.021	.017	.014	.053	.098	.070
	5.00	.083	.042	.016	.028	.027	.061	.035
	7.50	.048	.054	.031	.025	.004	.050	.021
	10.00	.014	.072	.023	.004	.009	.022	.084
	15.00	.018	.082	.008	.010	.009	.030	.144
	20.00	.045	.085	.008	.013	.022	.030	.093
	25.00	.059	.072	.024	.024	.035	.030	.075
	30.00	.059	.044	.045	.042	.057	.039	.066
	35.00	.074	.058	.077	.069	.088	.056	.088
	40.00	.072	.118	.120	.114	.131	.088	.072
	45.00	.050	.205	.190	.181	.193	.143	.098
	50.00	.036	.315	.272	.269	.274	.209	.098
	55.00	.148	.367	.304	.359	.312	.231	.080
	60.00	.231	.360	.267	.347	.309	.206	.081
	65.00	.358	.296	.286	.368	.324	.203	.093
	70.00	.409	.761	.443	.318	.276	.197	.099
	75.00	.458	.790	.433	.318	.277	.191	.111
80.00	.569	.732	.426	.318	.277	.184	.128	
85.00	.431	.677	.425	.318	.277	.181	.130	
90.00	.355	.601	.418	.318	.277	.181	.133	
LOWER SURFACE	1.25	.217	.092	.127	.221	.371	.484	.633
	2.50	.158	.062	.095	.173	.277	.383	.510
	3.75	.110	.043	.096	.100	.250	.320	.430
	5.00	.059	.067	.108	.134	.287	.307	.370
	7.50	.029	.060	.120	.157	.263	.265	.388
	10.00	.005	.100	.145	.210	.267	.319	.405
	15.00	.052	.120	.170	.236	.289	.355	.414
	20.00	.044	.141	.192	.255	.328	.377	.416
	25.00	.092	.160	.220	.263	.346	.396	.400
	30.00	.112	.183	.242	.300	.372	.425	.360
	35.00	.123	.200	.269	.328	.406	.440	.284
	40.00	.143	.230	.294	.371	.447	.450	.216
	45.00	.195	.257	.331	.419	.478	.416	.186
	50.00	.193	.254	.367	.448	.459	.387	.180
	55.00	.211	.296	.411	.448	.351	.313	.163
	60.00	.235	.365	.449	.349	.306	.211	.144
	65.00	.258	.435	.498	.270	.296	.160	.144
	70.00	.257	.435	.498	.270	.296	.160	.130
	75.00	.257	.435	.498	.270	.296	.160	.117
	80.00	.257	.435	.498	.270	.296	.160	.109
	85.00	.261	.431	.425	.318	.277	.181	.108
90.00	.261	.431	.425	.318	.277	.181	.108	
GAP								
UPPER SURFACE	M = 0.94    α = 3.9°							
	.00	.282	.243	.130	.397	.024	.019	.117
	1.25	.140	.798	.979	.865	.872	.917	.907
	2.50	.130	.781	.881	.770	.809	.849	.835
	3.75	.133	.340	.528	.548	.477	.481	.489
	5.00	.138	.380	.387	.348	.382	.388	.384
	7.50	.156	.313	.394	.277	.316	.308	.323
	10.00	.174	.295	.378	.248	.249	.248	.293
	15.00	.187	.292	.318	.211	.217	.203	.188
	20.00	.217	.293	.298	.165	.177	.161	.107
	25.00	.283	.299	.284	.117	.127	.118	.089
	30.00	.219	.302	.263	.076	.078	.069	.077
	35.00	.241	.072	.088	.026	.020	.022	.065
	40.00	.256	.065	.089	.034	.041	.040	.068
	45.00	.266	.176	.090	.093	.096	.093	.077
	50.00	.080	.217	.140	.138	.132	.126	.089
	55.00	.056	.177	.154	.190	.148	.136	.085
	60.00	.170	.045	.148	.173	.143	.130	.090
	65.00	.291	.085	.168	.184	.170	.120	.089
	70.00	.451	.793	.483	.335	.278	.197	.091
	75.00	.502	.803	.456	.335	.278	.190	.087
80.00	.585	.746	.449	.331	.276	.187	.093	
85.00	.506	.678	.441	.330	.276	.182	.096	
90.00	.431	.583	.427	.328	.272	.178	.090	
LOWER SURFACE	1.25	.358	.335	.341	.332	.315	.325	.266
	2.50	.333	.264	.260	.246	.240	.248	.184
	3.75	.289	.204	.184	.208	.150	.139	.110
	5.00	.243	.156	.135	.149	.096	.086	.038
	7.50	.205	.142	.107	.114	.062	.076	.024
	10.00	.169	.077	.082	.028	.020	.028	.141
	15.00	.111	.042	.008	.016	.035	.054	.207
	20.00	.102	.007	.032	.054	.072	.093	.290
	25.00	.053	.022	.068	.074	.108	.131	.304
	30.00	.080	.052	.096	.099	.125	.172	.278
	35.00	.000	.075	.139	.135	.167	.212	.265
	40.00	.082	.110	.183	.151	.200	.256	.248
	45.00	.084	.141	.274	.188	.232	.297	.214
	50.00	.077	.143	.274	.188	.232	.297	.188
	55.00	.100	.222	.185	.193	.221	.340	.176
	60.00	.136	.319	.229	.234	.221	.281	.138
	65.00	.164	.082	.003	.113	.201	.283	.109
	70.00	.353	.038	.100	.187	.212	.193	.108
	75.00	.136	.067	.142	.200	.225	.168	.093
	80.00	.131	.105	.184	.221	.235	.148	.071
	85.00	.138	.144	.222	.223	.261	.141	.065
90.00	.138	.144	.222	.223	.261	.141	.065	
GAP								

CONFIDENTIAL

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT.						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.94    α = 5.8°								
	.00	.442	.011	.083	.273	.361	.398	.228	
	1.25	.362	.042	.187	.150	.204	.1063	.937	
	2.50	.313	.061	.144	.1201	.1209	.1001	.854	
	5.00	.286	.075	.1092	.1126	.1144	.893	.755	
	7.50	.267	.087	.089	.1070	.1071	.800	.682	
	10.00	.271	.097	.083	.1016	.985	.669	.602	
	15.00	.275	.109	.072	.052	.415	.494	.486	
	20.00	.278	.119	.052	.244	.396	.396	.372	
	25.00	.298	.157	.041	.181	.234	.308	.261	
	30.00	.301	.185	.173	.121	.188	.247	.197	
	35.00	.299	.193	.180	.085	.136	.180	.153	
	40.00	.312	.185	.047	.044	.082	.120	.124	
	45.00	.328	.053	.003	.006	.026	.058	.116	
	50.00	.367	.088	.049	.066	.028	.002	.113	
	55.00	.226	.140	.085	.120	.074	.042	.121	
	60.00	.011	.108	.104	.183	.112	.067	.120	
	65.00	.138	.105	.097	.167	.119	.071	.128	
	70.00	.251	.030	.120	.179	.142	.075	.128	
LOWER SURFACE	75.00	.491	.779	.478	.348	.281	.210	.127	
	80.00	.534	.773	.484	.346	.277	.209	.121	
	85.00	.581	.789	.460	.343	.277	.207	.117	
	90.00	.513	.670	.444	.341	.277	.203	.108	
	95.00	.457	.592	.433	.338	.271	.193	.095	
	1.25	.411	.449	.437	.407	.418	.431	.378	
	2.50	.409	.371	.361	.321	.349	.350	.303	
	5.00	.377	.303	.278	.285	.259	.247	.217	
	7.50	.335	.248	.221	.231	.202	.191	.138	
	10.00	.291	.229	.189	.194	.161	.173	.076	
	15.00	.255	.156	.135	.108	.107	.092	.032	
	20.00	.191	.117	.080	.065	.030	.030	.108	
	25.00	.177	.079	.037	.027	.010	.020	.227	
	30.00	.189	.047	.001	.001	.025	.058	.278	
	35.00	.087	.012	.036	.029	.062	.103	.302	
	40.00	.063	.013	.074	.065	.099	.141	.288	
	45.00	.038	.049	.094	.095	.127	.189	.256	
	50.00	.021	.087	.115	.128	.147	.249	.212	
	55.00	.020	.107	.127	.148	.192	.274	.170	
60.00	.029	.185	.157	.219	.219	.303	.160		
65.00	.088	.269	.217	.219	.195	.290	.132		
70.00	.128	.128	.082	.044	.128	.330	.102		
75.00	.281	.102	.081	.152	.175	.221	.096		
80.00	.064	.016	.119	.164	.204	.194	.092		
85.00	.057	.048	.175	.194	.218	.139	.065		
90.00	.057	.093	.211	.206	.245	.139	.057		
95.00	.104	.146	.247	.337	.321	.220	.057		
GAP		.785	.785	.647	.647	.647	.647	.647	
UPPER SURFACE	M = 0.94    α = 7.8°								
	.00	.288	.207	.261	.148	.581	.644	.415	
	1.25	.530	1.074	1.273	1.248	1.290	.786	.573	
	2.50	.492	1.063	1.215	1.288	1.287	.769	.559	
	5.00	.449	1.051	1.265	1.232	1.242	.737	.550	
	7.50	.408	.903	1.132	1.182	1.196	.732	.543	
	10.00	.373	.818	1.077	1.126	1.135	.719	.533	
	15.00	.374	.643	.842	1.071	.830	.702	.517	
	20.00	.363	.502	.607	.829	.655	.603	.499	
	25.00	.373	.438	.482	.447	.553	.630	.483	
	30.00	.369	.423	.345	.378	.474	.600	.466	
	35.00	.368	.433	.377	.302	.403	.595	.448	
	40.00	.370	.433	.198	.160	.328	.564	.429	
	45.00	.385	.481	.132	.055	.251	.532	.415	
	50.00	.425	.038	.090	.009	.174	.471	.396	
	55.00	.322	.093	.061	.062	.108	.421	.379	
	60.00	.061	.089	.053	.136	.057	.376	.352	
	65.00	.113	.120	.058	.138	.039	.320	.316	
	70.00	.245	.059	.018	.160	.007	.255	.306	
75.00	.540	.787	.531	.379	.295	.302	.295		
80.00	.571	.774	.524	.375	.305	.323	.271		
85.00	.593	.736	.486	.373	.302	.289	.247		
90.00	.519	.687	.477	.370	.297	.249	.222		
95.00	.503	.619	.459	.361	.285	.203	.199		
LOWER SURFACE	1.25	.443	.523	.492	.464	.454	.463	.420	
	2.50	.473	.455	.425	.383	.394	.404	.349	
	5.00	.451	.384	.345	.340	.310	.308	.267	
	7.50	.427	.331	.292	.283	.256	.249	.190	
	10.00	.377	.303	.262	.247	.213	.230	.130	
	15.00	.340	.229	.198	.170	.155	.152	.019	
	20.00	.271	.183	.144	.126	.099	.088	.053	
	25.00	.249	.143	.099	.081	.054	.035	.146	
	30.00	.198	.107	.089	.049	.017	.009	.198	
	35.00	.152	.071	.084	.012	.020	.053	.229	
	40.00	.123	.042	.009	.026	.056	.097	.243	
	45.00	.096	.004	.036	.063	.089	.150	.258	
	50.00	.038	.036	.066	.098	.115	.189	.255	
	55.00	.038	.061	.088	.120	.164	.221	.226	
	60.00	.008	.138	.112	.134	.168	.264	.175	
	65.00	.038	.158	.142	.206	.267	.264	.119	
	70.00	.076	.138	.050	.015	.100	.246	.104	
	75.00	.216	.012	.085	.139	.149	.193	.104	
	80.00	.013	.031	.189	.146	.188	.160	.100	
85.00	.004	.077	.267	.177	.200	.128	.086		
90.00	.017	.146	.205	.194	.230	.118	.090		
95.00	.061	.783	.685	.361	.340	.289	.090		
GAP		.785	.785	.647	.647	.647	.647	.647	

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

TABLE III		PRESSURE COEFFICIENT, P, AT:						
PERCENT CHORD								
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
M = 0.94    α = 11.4°								
UPPER SURFACE	.00	.252	-.589	-.628	-.157	-.832	-.593	-.529
	1.25	.260	-.589	-.628	-.157	-.832	-.593	-.529
	2.50	.416	-.589	-.628	-.157	-.832	-.593	-.529
	3.75	.534	-.589	-.628	-.157	-.832	-.593	-.529
	5.00	.577	-.589	-.628	-.157	-.832	-.593	-.529
	7.50	.574	-.589	-.628	-.157	-.832	-.593	-.529
	10.00	.571	-.589	-.628	-.157	-.832	-.593	-.529
	15.00	.537	-.589	-.628	-.157	-.832	-.593	-.529
	20.00	.519	-.589	-.628	-.157	-.832	-.593	-.529
	25.00	.509	-.589	-.628	-.157	-.832	-.593	-.529
	30.00	.494	-.589	-.628	-.157	-.832	-.593	-.529
	35.00	.493	-.589	-.628	-.157	-.832	-.593	-.529
	40.00	.501	-.589	-.628	-.157	-.832	-.593	-.529
	45.00	.533	-.589	-.628	-.157	-.832	-.593	-.529
	50.00	.537	-.589	-.628	-.157	-.832	-.593	-.529
	55.00	.576	-.589	-.628	-.157	-.832	-.593	-.529
	60.00	.592	-.589	-.628	-.157	-.832	-.593	-.529
	65.00	.590	-.589	-.628	-.157	-.832	-.593	-.529
	70.00	.583	-.589	-.628	-.157	-.832	-.593	-.529
LOWER SURFACE	.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	1.25	.694	-.849	-.814	-.466	-.508	-.373	-.348
	2.50	.694	-.849	-.814	-.466	-.508	-.373	-.348
	3.75	.694	-.849	-.814	-.466	-.508	-.373	-.348
	5.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	7.50	.694	-.849	-.814	-.466	-.508	-.373	-.348
	10.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	15.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	20.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	25.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	30.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	35.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	40.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	45.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	50.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	55.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	60.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	65.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
	70.00	.694	-.849	-.814	-.466	-.508	-.373	-.348
UPPER SURFACE	.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	1.25	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	2.50	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	3.75	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	5.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	7.50	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	10.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	15.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	20.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	25.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	30.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	35.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	40.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	45.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	50.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	55.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	60.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	65.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
	70.00	.156	-.968	-.1.047	-.679	-.576	-.521	-.609
LOWER SURFACE	.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	1.25	.365	-.633	-.551	-.584	-.500	-.480	-.463
	2.50	.365	-.633	-.551	-.584	-.500	-.480	-.463
	3.75	.365	-.633	-.551	-.584	-.500	-.480	-.463
	5.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	7.50	.365	-.633	-.551	-.584	-.500	-.480	-.463
	10.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	15.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	20.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	25.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	30.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	35.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	40.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	45.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	50.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	55.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	60.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	65.00	.365	-.633	-.551	-.584	-.500	-.480	-.463
	70.00	.365	-.633	-.551	-.584	-.500	-.480	-.463

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.94    α = 20.0°								
	0.00	-.046	-1.192	-.977	-.847	-.654	-.632	-.659	
	1.25	-.522	-1.288	-.969	-.757	-.654	-.629	-.643	
	2.50	-.793	-1.260	-.942	-.752	-.656	-.628	-.642	
	5.00	-1.047	-1.261	-.978	-.750	-.656	-.616	-.639	
	7.50	-1.070	-1.245	-.968	-.748	-.656	-.616	-.641	
	10.00	-1.060	-1.227	-.970	-.764	-.660	-.625	-.633	
	15.00	-1.050	-1.180	-.960	-.724	-.667	-.622	-.631	
	20.00	-.924	-1.172	-.932	-.705	-.671	-.616	-.631	
	25.00	-.807	-1.144	-.911	-.707	-.671	-.605	-.633	
	30.00	-.727	-1.125	-.894	-.706	-.675	-.611	-.636	
	35.00	-.694	-1.108	-.881	-.706	-.675	-.611	-.641	
	40.00	-.707	-1.080	-.858	-.699	-.672	-.607	-.640	
	45.00	-.718	1.041	-.858	-.694	-.666	-.602	-.639	
	50.00	-.742	-.979	-.814	-.688	-.661	-.604	-.635	
	55.00	-.682	-.944	-.792	-.683	-.653	-.615	-.624	
	60.00	-.590	-.975	-.766	-.680	-.634	-.630	-.634	
	65.00	-.470	-.859	-.730	-.648	-.671	-.633	-.627	
	70.00	-.337	-.797	-.742	-.671	-.613	-.559	-.605	
	75.00	1.045	-.912	-.754	-.677	-.621	-.569	-.589	
80.00	-.877	-.929	-.748	-.673	-.621	-.575	-.579		
85.00	-.695	-.795	-.748	-.668	-.621	-.570	-.565		
90.00	-.700	-.713	-.737	-.668	-.621	-.570	-.565		
95.00	-.610	-.663	-.733	-.668	-.616	-.556	-.548		
LOWER SURFACE	1.25	.277	.627	.518	.574	.452	.425	.419	
	2.50	.507	.702	.617	.596	.515	.504	.470	
	5.00	.776	.706	.617	.602	.515	.475	.420	
	7.50	.837	.679	.593	.568	.480	.464	.378	
	10.00	.792	.654	.589	.565	.437	.397	.273	
	15.00	.743	.594	.546	.436	.382	.340	.183	
	20.00	.688	.546	.438	.398	.337	.288	.082	
	25.00	.620	.499	.438	.358	.293	.239	.001	
	30.00	.570	.457	.390	.328	.281	.186	.070	
	35.00	.515	.416	.350	.307	.263	.133	.084	
	40.00	.469	.377	.310	.263	.221	.079	.167	
	45.00	.437	.331	.278	.221	.161	.028	.125	
	50.00	.374	.284	.229	.177	.114	.038	.125	
	55.00	.365	.248	.195	.138	.071	.038	.125	
	60.00	.315	.198	.147	.088	.028	.095	.224	
	65.00	.271	.138	.075	.013	-.048	.116	.272	
	70.00	.164	-.063	-.210	-.051	-.185	-.007	.302	
	75.00	.102	.354	.263	.051	-.003	-.096	.331	
	80.00	.269	.214	.120	-.004	-.085	-.192	.403	
	85.00	.205	.074	.083	-.079	-.162	-.271	.440	
90.00	.146	-.013	-.087	-.156	-.219	-.333	.468		
95.00	.107	-.690	-.716	-.584	-.693	-.493			
GAP									
UPPER SURFACE	M = 0.94    α = 24.2°								
	0.00	.094	-.944	-.942	-.838	-.760	-.891	-.749	
	1.25	.415	-.931	-.896	-.796	-.756	-.755	-.731	
	2.50	.884	-.924	-.867	-.794	-.751	-.731	-.724	
	5.00	.933	-.930	-.888	-.795	-.751	-.690	-.704	
	7.50	.919	-.927	-.881	-.790	-.751	-.691	-.710	
	10.00	.916	-.931	-.888	-.795	-.751	-.691	-.711	
	15.00	.919	-.923	-.888	-.795	-.746	-.692	-.708	
	20.00	.912	-.934	-.878	-.793	-.747	-.693	-.704	
	25.00	.912	-.934	-.869	-.793	-.747	-.686	-.706	
	30.00	.899	-.928	-.860	-.786	-.745	-.694	-.706	
	35.00	.877	-.928	-.846	-.779	-.745	-.692	-.710	
	40.00	.854	-.926	-.837	-.778	-.743	-.691	-.713	
	45.00	.833	-.919	-.829	-.774	-.741	-.695	-.713	
	50.00	.832	-.909	-.821	-.766	-.737	-.700	-.713	
	55.00	.793	-.903	-.815	-.757	-.735	-.719	-.714	
	60.00	.765	-.907	-.815	-.750	-.735	-.719	-.703	
	65.00	.667	-.879	-.796	-.734	-.718	-.714	-.696	
	70.00	.535	-.885	-.789	-.730	-.710	-.711	-.690	
	75.00	.917	-.840	-.795	-.737	-.710	-.645	-.691	
80.00	.822	-.832	-.795	-.734	-.713	-.648	-.680		
85.00	.768	-.797	-.787	-.734	-.709	-.635	-.667		
90.00	.716	-.787	-.781	-.728	-.697	-.624	-.649		
95.00							.634		
LOWER SURFACE	1.25	.170	.596	.465	.508	.389	.348	.353	
	2.50	.439	.725	.618	.590	.525	.503	.465	
	5.00	.828	.765	.660	.637	.567	.521	.496	
	7.50	.887	.752	.657	.608	.529	.514	.431	
	10.00	.854	.737	.644	.598	.504	.459	.344	
	15.00	.829	.688	.602	.506	.458	.410	.338	
	20.00	.761	.645	.519	.461	.414	.360	.161	
	25.00	.718	.657	.512	.424	.373	.310	.078	
	30.00	.672	.618	.437	.381	.330	.260	.016	
	35.00	.618	.572	.395	.339	.286	.208	.039	
	40.00	.535	.432	.356	.293	.248	.152	.087	
	45.00	.475	.384	.312	.248	.196	.098	.118	
	50.00	.463	.345	.269	.200	.147	.042	.150	
	55.00	.410	.292	.220	.144	.101	.014	.181	
	60.00	.370	.224	.145	.077	.029	.033	.221	
	65.00	.254						.239	
	70.00	.208	.417	.310	.258	.191	.076	.298	
	75.00	.338	.275	.203	.096	.088	.101	.318	
	80.00	.269	.190	.093	.039	.085	.162	.366	
	85.00	.206	.124	.014	.039	.108	.219	.416	
90.00	.148	.009	-.087	.121	.172	.293	.469		
95.00		.614	-.684	-.581	-.691	-.470			
GAP									

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.98    α = 0.0°							
	.00	.303	.562	.503	.833	.507	.478	.414
	1.25	.073	.088	.070	.019	.111	.201	.122
	2.50	.085	.016	.039	.018	.039	.049	.075
	5.00	.089	.017	.086	.005	.030	.046	.045
	7.50	.081	.033	.080	.024	.007	.019	.030
	10.00	.073	.047	.031	.022	.014	.010	.029
	15.00	.032	.065	.017	.005	.006	.010	.163
	20.00	.003	.081	.005	.013	.008	.006	.163
	25.00	.033	.093	.002	.013	.008	.002	.109
	30.00	.049	.077	.003	.025	.011	.016	.083
	35.00	.082	.053	.059	.038	.030	.029	.083
	40.00	.068	.053	.087	.062	.062	.056	.097
	45.00	.078	.148	.137	.104	.105	.109	.136
	50.00	.046	.240	.203	.167	.170	.183	.192
	55.00	.054	.348	.381	.249	.258	.210	.189
	60.00	.146	.376	.303	.322	.311	.198	.169
	65.00	.231	.363	.270	.328	.316	.198	.154
	70.00	.373	.299	.286	.342	.338	.189	.158
	75.00	.624	.819	.583	.424	.351	.290	.168
80.00	.648	.866	.524	.424	.353	.285	.179	
85.00	.581	.779	.519	.423	.349	.274	.187	
90.00	.554	.705	.514	.423	.344	.252	.192	
95.00	.416	.602	.507	.400	.339	.310	.198	
LOWER SURFACE	1.25	.258	.007	.034	.105	.223	.284	.392
	2.50	.205	.006	.025	.085	.160	.225	.296
	5.00	.157	.007	.030	.038	.163	.229	.235
	7.50	.104	.012	.053	.068	.179	.219	.265
	10.00	.079	.023	.061	.085	.192	.185	.273
	15.00	.046	.055	.093	.154	.203	.240	.257
	20.00	.003	.072	.116	.173	.225	.272	.315
	25.00	.005	.094	.147	.206	.264	.312	.344
	30.00	.040	.111	.162	.203	.276	.322	.344
	35.00	.063	.134	.186	.233	.293	.343	.290
	40.00	.074	.149	.211	.261	.326	.371	.333
	45.00	.097	.179	.236	.300	.364	.409	.377
	50.00	.096	.208	.288	.345	.394	.433	.381
	55.00	.144	.205	.329	.371	.429	.476	.402
	60.00	.164	.238	.330	.391	.430	.461	.378
	65.00	.159	.267	.331	.352	.314	.312	.237
	70.00	.215		.329	.187	.251	.291	.263
	75.00	.183	.177	.182	.224	.270	.352	.186
	80.00	.185	.179	.179	.217	.292	.352	.174
	85.00	.199	.179	.201	.250	.291	.219	.160
90.00	.207	.145	.200	.282	.297	.250	.128	
95.00	.214	.533	.597	.441	.380	.294		
GAP								
UPPER SURFACE	M = 0.98    α = 3.0°							
	.00	.314	.292	.178	.449	.048	.057	.152
	1.25	.079	.707	.138	.800	.736	.749	.770
	2.50	.028	.636	.743	.818	.682	.746	.713
	5.00	.046	.878	.574	.729	.485	.576	.586
	7.50	.083	.863	.386	.570	.344	.303	.420
	10.00	.094	.257	.341	.333	.292	.263	.291
	15.00	.123	.348	.333	.150	.237	.237	.258
	20.00	.144	.247	.319	.118	.202	.190	.253
	25.00	.169	.253	.288	.101	.165	.147	.167
	30.00	.179	.254	.063	.081	.116	.117	.116
	35.00	.177	.269	.084	.059	.069	.073	.090
	40.00	.194	.204	.037	.016	.019	.030	.104
	45.00	.216	.079	.063	.044	.036	.019	.128
	50.00	.253	.200	.113	.108	.041	.071	.173
	55.00	.123	.229	.150	.141	.141	.107	.163
	60.00	.119	.161	.160	.188	.164	.109	.183
	65.00	.283	.103	.197	.165	.172	.105	.181
	70.00	.349	.049	.180	.178	.188	.091	.175
	75.00	.551	.815	.531	.436	.353	.287	.178
80.00	.551	.840	.547	.434	.353	.282	.168	
85.00	.536	.761	.540	.432	.349	.274	.180	
90.00	.526	.670	.586	.431	.345	.262	.189	
95.00	.507	.567	.519	.424	.340	.251	.191	
LOWER SURFACE	1.25	.385	.360	.384	.335	.315	.323	.277
	2.50	.364	.294	.276	.250	.242	.248	.199
	5.00	.330	.233	.201	.213	.149	.144	.128
	7.50	.275	.184	.154	.158	.093	.098	.055
	10.00	.237	.168	.128	.124	.058	.088	.006
	15.00	.204	.109	.074	.019	.009	.014	.110
	20.00	.144	.075	.088	.012	.042	.032	.183
	25.00	.140	.042	.007	.050	.048	.047	.258
	30.00	.090	.013	.043	.090	.088	.110	.296
	35.00	.052	.017	.076	.133	.117	.154	.306
	40.00	.036	.042	.114	.166	.166	.177	.315
	45.00	.009	.073	.183	.217	.186	.208	.323
	48.00	.009	.103	.284	.189	.189	.272	.325
	50.00	.043	.112	.246	.181	.232	.314	.336
	55.00	.049	.166	.288	.217	.288	.355	.303
	60.00	.105	.254	.266	.216	.266	.356	.284
	70.00	.119						.291
	75.00	.332	.004	.019	.041	.144	.361	.300
	80.00	.117	.073	.077	.148	.200	.380	.289
	85.00	.132	.105	.109	.164	.229	.325	.210
90.00	.125	.118	.145	.204	.296	.311	.150	
95.00	.158	.117	.185	.244	.398	.305		
GAP			.842	.678	.414			



TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 0.98 \quad \alpha = 5.9^\circ$								
	.00	.309	.067	-.030	-.338	-.273	-.333	-.194	
	1.25	.258	.088	-1.032	-.994	-1.009	-1.021	-1.043	
	2.50	.230	.084	-.989	-1.031	-1.014	-1.049	-1.019	
	5.00	.217	.043	-.941	-.971	-.950	-.957	-.889	
	7.50	.213	.449	-.846	-.908	-.891	-.897	-.873	
	10.00	.213	.442	-.799	-.836	-.862	-.860	-.851	
	15.00	.235	.376	-.458	-.783	-.751	-.579	-.450	
	20.00	.242	.362	-.410	-.774	-.780	-.522	-.272	
	25.00	.262	.353	-.416	-.793	-.785	-.260	-.183	
	30.00	.265	.348	-.429	-.741	-.745	-.213	-.152	
	35.00	.263	.358	-.413	-.694	-.701	-.159	-.137	
	40.00	.274	.365	-.054	-.628	-.628	-.103	-.126	
	45.00	.294	.070	-.081	-.621	-.008	-.048	-.129	
	50.00	.334	.100	-.082	-.078	.047	.010	-.145	
	55.00	.240	.143	-.086	.126	.101	.059	-.183	
	60.00	.004	.130	-.104	.181	.133	.091	-.194	
	65.00	.130	.160	-.100	.164	.147	.097	-.212	
	70.00	.220	.018	-.187	.175	.169	.097	-.211	
	75.00	.537	.834	-.569	-.477	-.386	-.312	-.213	
LOWER SURFACE	80.00	.553	.841	-.588	-.471	-.386	-.307	-.208	
	85.00	.567	.774	-.567	-.469	-.383	-.298	-.214	
	90.00	.608	.698	-.547	-.471	-.380	-.286	-.211	
	95.00	.538	.604	-.532	-.461	-.375	-.276	-.207	
	GAP								
	1.25	.430	.468	.445	.414	.417	.429	.395	
	2.50	.431	.392	.388	.325	.343	.354	.314	
	5.00	.400	.323	.384	.289	.254	.250	.234	
	7.50	.360	.271	.234	.240	.199	.195	.156	
	10.00	.315	.249	.203	.203	.166	.184	.100	
	15.00	.280	.180	.148	.110	.110	.101	.020	
	20.00	.255	.140	.092	.066	.055	.040	.113	
	25.00	.201	.103	.051	.027	.013	.000	.207	
	30.00	.152	.070	.010	.006	.028	.036	.267	
	35.00	.110	.036	-.026	.027	.055	.083	.305	
	40.00	.085	.012	-.070	.063	.087	.128	.334	
	45.00	.061	.025	.115	.086	.116	.180	.361	
	50.00	.004	.062	.162	.111	.160	.216	.353	
	55.00	.002	.078	.115	.163	.173	.278	.339	
	60.00	.025	.148	.135	.171	.195	.311	.300	
65.00	.066	.246	.190	.184	.285	.349	.282		
70.00	.087						.280		
75.00	.296	.101	.051	.000	.097	.334	.291		
80.00	.080	.018	.062	.126	.168	.330	.292		
85.00	.086	.030	.112	.145	.209	.335	.270		
90.00	.089	.068	.149	.193	.248	.360	.243		
95.00	.097	.116	.191	.230	.292	.343	.178		
GAP		.826	-.702	-.433	-.446	-.336			
$M = 0.98 \quad \alpha = 7.9^\circ$									
UPPER SURFACE	.00	.313	.139	-.184	.226	-.484	-.561	.458	
	1.25	.419	1.044	1.149	1.121	1.151	1.087	.911	
	2.50	.386	1.029	1.105	1.157	1.157	1.098	.905	
	5.00	.347	.960	1.098	1.108	1.110	1.022	.862	
	7.50	.318	.762	1.036	1.063	1.071	.980	.827	
	10.00	.309	.662	1.010	1.016	1.047	.889	.797	
	15.00	.327	.538	.920	.988	.972	.670	.691	
	20.00	.321	.473	.608	.913	.701	.560	.641	
	25.00	.330	.436	.493	.607	.533	.504	.601	
	30.00	.331	.419	.418	.408	.415	.481	.558	
	35.00	.334	.428	.214	.324	.352	.455	.518	
	40.00	.348	.222	.119	.183	.292	.435	.478	
	45.00	.389	.015	.056	.037	.238	.408	.438	
	50.00	.311	.081	.011	.053	.179	.375	.394	
	55.00	.311	.040	.082	.118	.184	.334	.374	
	60.00	.145	.162	.064	.189	.084	.300	.357	
	65.00	.207	.038	.096	.194	.042	.259	.349	
	70.00	.676	.838	.606	.507	.434	.391	.334	
	75.00	.614	.834	.627	.501	.446	.395	.319	
	80.00	.554	.783	.598	.499	.439	.380	.295	
85.00	.526	.722	.570	.502	.427	.359	.283		
90.00	.519	.637	.560	.491	.412	.333	.261		
LOWER SURFACE	GAP								
	1.25	.462	.540	.511	.477	.468	.467	.432	
	2.50	.493	.473	.445	.398	.407	.408	.363	
	5.00	.469	.404	.361	.353	.324	.317	.207	
	7.50	.446	.350	.310	.299	.269	.242	.152	
	10.00	.398	.322	.278	.266	.231	.159	.039	
	15.00	.362	.250	.220	.184	.115	.099	.050	
	20.00	.292	.204	.165	.140	.071	.049	.142	
	25.00	.273	.164	.129	.099	.037	.007	.209	
	30.00	.219	.128	.089	.067	.002	.046	.265	
	35.00	.171	.081	.044	.031	-.039	.079	.296	
	40.00	.144	.026	-.020	.038	-.085	.120	.321	
	45.00	.118	.012	-.047	.083	-.099	.179	.332	
	50.00	.056	.038	-.057	.108	-.119	.243	.360	
	55.00	.086	.114	-.093	.124	-.182	.266	.332	
	60.00	.015	.209	.136	.165	-.187	.331	.296	
	65.00	.048						.297	
	70.00	.331	.164	.076	.034	.059	.261	.302	
	75.00	.016	.036	.030	.111	.140	.254	.301	
	80.00	.000	.018	.079	.121	.183	.304	.294	
85.00	.003	.050	.126	.172	.231	.347	.274		
90.00	.034	.113	.170	.224	.273	.361	.215		
95.00		.785	.709	.472	.489	.390			

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.98    α = 11.4°								
	.00	.295	-.467	-.490	-.013	-.722	-.763	-.717	
	1.25	.172	1.106	1.092	1.065	.826	.711	.643	
	2.50	.323	1.087	1.038	1.059	.820	.686	.633	
	5.00	.441	1.120	.984	1.045	.818	.664	.623	
	7.50	.483	1.080	.966	1.030	.817	.674	.624	
	10.00	.483	1.030	.868	.999	.817	.670	.613	
	15.00	.486	.844	.824	.941	.817	.661	.597	
	20.00	.455	.898	.757	.871	.818	.661	.581	
	25.00	.442	.830	.672	.834	.814	.646	.567	
	30.00	.432	.723	.591	.798	.805	.651	.557	
	35.00	.420	.565	.513	.767	.793	.643	.549	
	40.00	.419	.430	.448	.736	.775	.631	.541	
	45.00	.427	.419	.457	.698	.760	.612	.534	
	50.00	.460	.004	.518	.648	.744	.592	.530	
	55.00	.385	.103	.536	.576	.727	.565	.522	
	60.00	.235	.103	.533	.421	.699	.540	.512	
	65.00	.060	.100	.513	.418	.653	.510	.511	
	70.00	.230	.023	.468	.385	.712	.488	.510	
	75.00	1.021	.851	.661	.600	.653	.490	.504	
	80.00	.649	.853	.697	.603	.701	.498	.497	
85.00	.537	.803	.665	.571	.696	.500	.494		
90.00	.539	.744	.681	.543	.662	.488	.486		
95.00	.456	.666	.589	.507	.613	.474	.483		
LOWER SURFACE	1.25	.467	.638	.575	.569	.525	.508	.365	
	2.50	.567	.598	.541	.509	.495	.483	.324	
	5.00	.708	.540	.477	.468	.431	.408	.259	
	7.50	.613	.487	.430	.418	.381	.355	.193	
	10.00	.571	.458	.394	.377	.343	.337	.178	
	15.00	.520	.384	.339	.307	.284	.255	.032	
	20.00	.439	.336	.282	.258	.226	.198	.075	
	25.00	.403	.291	.237	.211	.180	.143	.133	
	30.00	.355	.253	.198	.177	.142	.100	.221	
	35.00	.302	.216	.159	.138	.103	.055	.268	
	40.00	.265	.182	.123	.097	.065	.007	.300	
	45.00	.236	.142	.095	.060	.025	.050	.329	
	50.00	.182	.098	.063	.020	.010	.111	.393	
	55.00	.173	.060	.037	.012	.061	.151	.350	
	60.00	.130	.001	.085	.034	.111	.188	.347	
	65.00	.099	.034	.040	.121	.101	.274	.373	
	70.00	.028		.169	.135	.053	.116	.392	
	75.00	.130	.242	.034	.040	.060	.141	.412	
	80.00	.111	.112	.077	.077	.116	.206	.432	
	85.00	.093	.049	.076	.126	.172	.281	.447	
	90.00	.057	.004	.122	.176	.215	.319	.468	
GAP	.042	.724	.724	.544	.731	.472			
UPPER SURFACE	M = 0.98    α = 15.8°								
	.00	.187	-.849	-.921	-.706	-.563	-.630	-.658	
	1.25	.319	1.287	1.178	.849	.532	.660	.589	
	2.50	.534	1.234	1.111	.842	.534	.628	.588	
	5.00	.701	1.254	1.143	.829	.563	.611	.590	
	7.50	.742	1.260	1.124	.822	.560	.626	.592	
	10.00	.736	1.243	1.143	.841	.597	.628	.590	
	15.00	.726	1.186	1.146	.812	.540	.631	.590	
	20.00	.670	1.126	1.115	.808	.479	.633	.588	
	25.00	.627	1.058	1.083	.836	.499	.621	.585	
	30.00	.593	1.158	1.047	.847	.711	.626	.587	
	35.00	.564	1.147	1.024	.896	.711	.619	.584	
	40.00	.555	1.063	1.016	.867	.708	.614	.580	
	45.00	.557	.695	1.025	.819	.702	.609	.575	
	50.00	.579	.266	1.040	.799	.689	.600	.571	
	55.00	.493	.094	1.146	.780	.678	.589	.566	
	60.00	.392	.093	1.110	.670	.665	.580	.563	
	65.00	.290	.358	.900	.754	.648	.572	.566	
	70.00	.080	.118	.855	.727	.630	.563	.572	
	75.00	.998	.780	.804	.643	.636	.579	.569	
	80.00	.709	.771	.939	.729	.648	.581	.568	
85.00	.602	.748	.764	.720	.644	.570	.564		
90.00	.619	.705	.637	.700	.628	.565	.559		
95.00	.524	.640	.578	.690	.613	.561	.550		
LOWER SURFACE	1.25	.398	.669	.881	.593	.584	.494	.479	
	2.50	.575	.683	.609	.586	.542	.526	.489	
	5.00	.748	.652	.578	.565	.509	.483	.448	
	7.50	.744	.608	.541	.520	.471	.440	.385	
	10.00	.721	.577	.510	.480	.434	.421	.339	
	15.00	.668	.511	.487	.418	.381	.349	.238	
	20.00	.580	.463	.404	.378	.328	.294	.125	
	25.00	.536	.416	.387	.320	.288	.239	.051	
	30.00	.485	.375	.315	.284	.250	.194	.038	
	35.00	.429	.333	.278	.240	.200	.144	.097	
	40.00	.385	.297	.239	.198	.161	.098	.128	
	45.00	.383	.284	.206	.157	.120	.048	.184	
	50.00	.296	.208	.161	.115	.081	.007	.210	
	55.00	.286	.172	.127	.074	.043	.069	.240	
	60.00	.240	.125	.094	.031	.011	.121	.208	
	65.00	.203	.070	.033	.034	.047	.176	.246	
	70.00	.103						.283	
	75.00	.216	.308	.289	.210	.136	.053	.311	
	80.00	.159	.173	.090	.040	.082	.116	.335	
	85.00	.103	.104	.089	.009	.063	.187	.364	
	90.00	.070	.043	.036	.046	.129	.262	.394	
95.00	.070	.036	.088	.106	.189	.312	.443		
GAP		.654	.727	.638	.662	.516			

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.98    α = 20.2°							
	1.00	-.053	-1.079	-1.144	-.736	-.717	-.682	-.698
	1.25	-.409	-1.307	-1.171	-.673	-.717	-.703	-.688
	2.50	-.698	-1.283	-1.121	-.673	-.720	-.682	-.688
	5.00	-.941	-1.301	-1.146	-.688	-.720	-.673	-.676
	7.50	-.968	-1.306	-1.127	-.690	-.725	-.685	-.685
	10.00	-.951	-1.309	-1.110	-.699	-.727	-.686	-.686
	15.00	-.931	-1.264	-1.074	-.723	-.732	-.687	-.686
	20.00	-.853	-1.275	-1.053	-.762	-.736	-.685	-.685
	25.00	-.773	-1.279	-1.053	-.796	-.737	-.672	-.684
	30.00	-.716	-1.236	-1.066	-.807	-.736	-.683	-.683
	35.00	-.683	-1.282	-1.044	-.807	-.732	-.683	-.683
	40.00	-.669	-1.292	-1.010	-.804	-.730	-.683	-.681
	45.00	-.667	-1.215	-.984	-.795	-.726	-.678	-.679
	50.00	-.680	-.906	-.961	-.784	-.721	-.672	-.680
	55.00	-.603	-.530	-.924	-.772	-.714	-.669	-.680
	60.00	-.514	-.369	-.888	-.777	-.707	-.662	-.675
	LOWER SURFACE	65.00	-.474	-.396	-.874	-.759	-.697	-.666
70.00		-.379	-.269	-.849	-.728	-.723	-.669	-.682
75.00		-.435	-1.015	-.741	-.751	-.679	-.646	-.672
80.00		-.786	-1.082	-.711	-.771	-.686	-.649	-.670
85.00		-.651	-1.019	-.825	-.757	-.688	-.651	-.661
90.00		-.633	-.872	-.818	-.745	-.682	-.648	-.650
95.00		-.580	-.656	-.814	-.723	-.673	-.641	-.635
1.25		.300	.660	.549	.564	.478	.447	.432
2.50		.545	.732	.645	.607	.536	.536	.494
5.00		.819	.732	.644	.622	.560	.530	.490
7.50		.870	.705	.628	.590	.539	.503	.445
10.00		.823	.679	.603	.564	.508	.492	.402
15.00		.777	.622	.559	.510	.468	.427	.312
20.00		.696	.575	.505	.467	.417	.375	.203
25.00		.652	.527	.465	.420	.373	.324	.129
30.00		.603	.486	.425	.381	.328	.276	.048
35.00		.549	.443	.386	.336	.288	.234	.018
40.00		.504	.408	.347	.295	.248	.179	.079
45.00	.471	.363	.306	.253	.206	.124	.110	
50.00	.411	.318	.266	.212	.162	.066	.161	
55.00	.400	.282	.229	.170	.118	.007	.139	
60.00	.351	.231	.182	.122	.080	-.048	.163	
65.00	.311	.171	.116	.057	.009	-.087	.213	
70.00	.202						.271	
75.00	.128	.384	.300	.256	.182	.034	.283	
80.00	.300	.247	.164	.096	.059	-.098	.307	
85.00	.233	.180	.105	.042	.025	-.158	.347	
90.00	.171	.107	.034	-.021	.096	-.215	.389	
95.00	.122	.015	-.023	-.099	.157	-.280	.434	
GAP			.619	-.687	.572	.680	.500	
M = 1.00    α = -0.1°								
UPPER SURFACE	1.00	.311	.573	.509	.830	.510	.483	.401
	1.25	.135	.001	.045	.051	.136	.225	.147
	2.50	.188	.011	.024	.049	.063	.083	.098
	5.00	.118	.005	.019	.040	.056	.067	.073
	7.50	.109	.013	.014	.054	.029	.036	.054
	10.00	.091	.028	.015	.049	.008	.028	.074
	15.00	.055	.047	.004	.030	.012	.005	.150
	20.00	.020	.066	.026	.034	.005	.004	.169
	25.00	.010	.082	.048	.036	.014	.011	.131
	30.00	.029	.075	.061	.047	.031	.014	.078
	35.00	.033	.027	.080	.061	.046	.029	.073
	40.00	.054	.090	.109	.084	.079	.037	.091
	45.00	.070	.167	.159	.124	.117	.060	.091
	50.00	.039	.257	.224	.185	.178	.105	.139
	55.00	.073	.362	.304	.269	.265	.179	.225
	60.00	.132	.404	.324	.365	.321	.224	.259
	65.00	.328	.391	.288	.350	.329	.228	.256
	70.00	.425	.326	.306	.362	.329	.216	.264
75.00	.549	.830	.585	.453	.422	.346	.269	
80.00	.568	.887	.531	.462	.430	.342	.259	
85.00	.602	.798	.528	.458	.429	.334	.265	
90.00	.473	.720	.527	.460	.427	.317	.272	
95.00	.393	.601	.520	.466	.428	.311	.265	
LOWER SURFACE	1.25	.269	.008	.035	.107	.230	.299	.402
	2.50	.217	.010	.018	.003	.163	.233	.309
	5.00	.172	.022	.027	.030	.158	.223	.241
	7.50	.128	.002	.048	.068	.172	.218	.264
	10.00	.055	.003	.064	.085	.187	.182	.272
	15.00	.059	.042	.087	.143	.198	.236	.259
	20.00	.010	.060	.113	.161	.218	.268	.309
	25.00	.015	.083	.141	.196	.256	.303	.364
	30.00	.032	.102	.155	.195	.262	.311	.345
	35.00	.054	.124	.181	.225	.281	.336	.306
	40.00	.083	.143	.204	.250	.312	.362	.332
	45.00	.085	.170	.231	.289	.349	.397	.388
	50.00	.105	.199	.257	.325	.379	.427	.403
	55.00	.134	.193	.281	.354	.414	.475	.432
	60.00	.153	.285	.319	.376	.424	.493	.438
	65.00	.153	.256	.329	.355	.368	.400	.359
	70.00	.198						.320
	75.00	.368	.101	.141	.200	.226	.286	.275
80.00	.177	.182	.191	.201	.260	.331	.220	
85.00	.195	.182	.181	.218	.287	.283	.230	
90.00	.207	.187	.196	.244	.290	.243	.243	
95.00	.211	.148	.285	.269	.297	.273	.234	
GAP			.837	.597	.474	.450	.367	

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 1.00    α = 3.8°								
	.00	.385	.328	.223	.487	.083	.018	.206	
	1.25	.148	.657	.780	.755	.677	.711	.719	
	2.50	.095	.585	.780	.777	.627	.698	.666	
	5.00	.074	.547	.807	.686	.446	.547	.481	
	7.50	.071	.537	.802	.524	.327	.381	.371	
	10.00	.074	.530	.306	.321	.265	.250	.255	
	15.00	.099	.522	.302	.145	.207	.223	.220	
	20.00	.119	.523	.296	.108	.183	.175	.232	
	25.00	.146	.528	.333	.086	.150	.133	.156	
	30.00	.156	.533	.044	.056	.108	.102	.104	
	35.00	.154	.549	.005	.031	.060	.061	.084	
	40.00	.172	.505	.033	.009	.009	.018	.076	
	45.00	.194	.090	.081	.065	.050	.028	.092	
	50.00	.432	.211	.134	.120	.110	.083	.130	
	55.00	.107	.238	.174	.163	.157	.120	.168	
	60.00	.108	.174	.183	.209	.181	.128	.230	
	65.00	.288	.099	.183	.186	.189	.121	.253	
	70.00	.355	.070	.204	.199	.203	.108	.244	
	LOWER SURFACE	75.00	.517	.602	.537	.471	.418	.350	.322
80.00		.554	.849	.555	.471	.418	.350	.329	
85.00		.628	.763	.550	.471	.418	.323	.331	
90.00		.586	.576	.550	.471	.418	.323	.331	
95.00		.481	.566	.529	.474	.417	.311	.232	
GAP									
1.25		.392	.363	.350	.328	.318	.301	.266	
2.50		.373	.299	.284	.249	.246	.209	.189	
5.00		.355	.240	.210	.211	.156	.129	.124	
7.50		.285	.193	.163	.151	.100	.081	.055	
10.00		.246	.177	.133	.116	.061	.078	.012	
15.00		.213	.119	.088	.039	.020	.011	.098	
20.00		.155	.082	.041	.001	.040	.044	.153	
25.00		.148	.051	.005	.040	.086	.084	.245	
30.00		.100	.021	.027	.075	.118	.121	.302	
35.00		.063	.008	.055	.119	.136	.160	.309	
40.00		.044	.030	.094	.156	.179	.223	.317	
45.00		.020	.085	.131	.201	.214	.252	.331	
50.00		.044	.096	.210	.241	.215	.316	.331	
55.00		.093	.150	.283	.209	.240	.345	.323	
60.00	.096	.236	.281	.248	.262	.379	.280		
65.00	.104						.279		
70.00	.314	.000	.012	.030	.105	.309	.278		
75.00	.108	.075	.072	.137	.170	.280	.289		
80.00	.123	.100	.107	.148	.207	.296	.290		
85.00	.129	.138	.138	.188	.240	.317	.293		
90.00	.124	.178	.178	.227	.274	.326	.272		
95.00	.157	.826	.679	.443	.474	.348			
M = 1.00    α = 5.8°									
UPPER SURFACE	.00	.327	.127	.035	.378	.179	.245	.115	
	1.25	.401	.819	.966	.934	.940	.966	.974	
	2.50	.279	.828	.985	.974	.943	.976	.955	
	5.00	.226	.579	.874	.917	.885	.889	.825	
	7.50	.201	.365	.789	.850	.836	.835	.812	
	10.00	.180	.333	.737	.786	.805	.803	.796	
	15.00	.194	.333	.387	.738	.707	.570	.436	
	20.00	.200	.318	.362	.354	.334	.246	.252	
	25.00	.221	.313	.372	.167	.153	.190	.159	
	30.00	.227	.310	.236	.118	.117	.168	.133	
	35.00	.226	.321	.076	.070	.078	.128	.114	
	40.00	.239	.328	.019	.019	.031	.076	.102	
	45.00	.259	.047	.032	.039	.003	.028	.112	
	50.00	.298	.130	.080	.095	.066	.036	.143	
	55.00	.207	.176	.113	.148	.117	.085	.200	
	60.00	.006	.129	.129	.203	.153	.113	.235	
	65.00	.140	.124	.128	.181	.161	.101	.262	
	70.00	.247	.016	.058	.193	.181	.117	.258	
	75.00	.580	.818	.581	.493	.433	.347	.257	
	LOWER SURFACE	80.00	.588	.838	.581	.493	.441	.345	.249
85.00		.599	.838	.581	.494	.441	.341	.255	
90.00		.573	.677	.540	.494	.440	.329	.254	
95.00		.527	.582	.589	.494	.435	.316	.248	
GAP									
1.25		.439	.474	.489	.413	.392	.424	.391	
2.50		.442	.401	.381	.320	.308	.350	.311	
5.00		.416	.332	.289	.287	.248	.250	.233	
7.50		.370	.282	.238	.238	.194	.195	.162	
10.00		.327	.259	.216	.199	.153	.179	.109	
15.00		.293	.192	.164	.111	.113	.072	.004	
20.00		.293	.183	.123	.065	.060	.029	.097	
25.00		.217	.118	.069	.028	.000	.003	.186	
30.00		.164	.083	.031	.017	.022	.038	.254	
35.00		.124	.050	.080	.055	.057	.074	.300	
40.00		.078	.026	.041	.058	.089	.098	.381	
45.00		.011	.011	.089	.078	.109	.157	.335	
50.00		.011	.043	.143	.092	.121	.217	.383	
55.00		.031	.084	.183	.139	.184	.245	.338	
60.00		.009	.120	.164	.169	.183	.308	.381	
65.00	.044	.215	.176	.180	.238	.339	.263		
70.00	.063						.268		
75.00	.277	.068	.090	.007	.059	.278	.277		
80.00	.069	.008	.028	.113	.141	.281	.287		
85.00	.063	.049	.077	.126	.158	.318	.295		
90.00	.080	.075	.114	.167	.208	.339	.304		
95.00	.118	.092	.161	.208	.261	.339	.283		
GAP									

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, $P$ , AT:													
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2							
UPPER SURFACE	$M = 1.00 \quad \alpha = 7.8^\circ$														
	.00	.331	..	.069	..	.126	..	.469	..	.404	..	.483	..	.383	
	1.25	.500	..	.091	..	1.071	..	1.046	..	1.064	..	1.069	..	.984	
	2.50	.416	..	.065	..	1.030	..	1.079	..	1.072	..	1.073	..	.978	
	5.00	.344	..	.090	..	1.016	..	1.033	..	1.029	..	.994	..	.895	
	7.50	.299	..	.087	..	.956	..	.988	..	.990	..	.965	..	.860	
	10.00	.278	..	.057	..	.939	..	.931	..	.976	..	.895	..	.821	
	15.00	.286	..	.446	..	.826	..	.915	..	.903	..	.642	..	.646	
	20.00	.284	..	.410	..	.564	..	.823	..	.652	..	.490	..	.547	
	25.00	.294	..	.391	..	.450	..	.564	..	.476	..	.427	..	.505	
	30.00	.292	..	.378	..	.399	..	.362	..	.358	..	.406	..	.462	
	35.00	.287	..	.382	..	.188	..	.285	..	.296	..	.383	..	.434	
	40.00	.298	..	.393	..	.088	..	.146	..	.249	..	.370	..	.408	
	45.00	.314	..	.184	..	.086	..	.005	..	.194	..	.348	..	.391	
	50.00	.354	..	.042	..	.087	..	.075	..	.142	..	.318	..	.377	
	55.00	.279	..	.106	..	.067	..	.134	..	.094	..	.302	..	.378	
	60.00	.109	..	.064	..	.097	..	.211	..	.053	..	.293	..	.372	
	65.00	.057	..	.141	..	.107	..	.196	..	.033	..	.252	..	.366	
	70.00	.169	..	.032	..	.134	..	.213	..	.033	..	.230	..	.363	
75.00	.623	..	.829	..	.591	..	.515	..	.449	..	.433	..	.366		
80.00	.627	..	.839	..	.617	..	.516	..	.464	..	.435	..	.349		
85.00	.567	..	.767	..	.581	..	.514	..	.461	..	.427	..	.332		
90.00	.503	..	.698	..	.558	..	.514	..	.452	..	.405	..	.323		
95.00	.517	..	.608	..	.546	..	.510	..	.436	..	.388	..	.309		
LOWER SURFACE	1.25	.473	..	.546	..	.517	..	.480	..	.471	..	.469	..	.435	
	2.50	.506	..	.478	..	.450	..	.391	..	.390	..	.387	..	.367	
	5.00	.482	..	.410	..	.364	..	.350	..	.344	..	.312	..	.286	
	7.50	.456	..	.355	..	.315	..	.299	..	.271	..	.255	..	.218	
	10.00	.408	..	.329	..	.282	..	.258	..	.228	..	.237	..	.162	
	15.00	.370	..	.259	..	.224	..	.183	..	.176	..	.161	..	.053	
	20.00	.302	..	.212	..	.171	..	.139	..	.122	..	.103	..	.006	
	25.00	.283	..	.176	..	.127	..	.101	..	.061	..	.059	..	.138	
	30.00	.228	..	.137	..	.082	..	.069	..	.040	..	.019	..	.206	
	35.00	.184	..	.106	..	.048	..	.033	..	.010	..	.029	..	.260	
	40.00	.157	..	.075	..	.083	..	.004	..	.025	..	.075	..	.295	
	45.00	.130	..	.038	..	.034	..	.023	..	.068	..	.122	..	.324	
	50.00	.063	..	.003	..	.043	..	.070	..	.112	..	.157	..	.338	
	55.00	.071	..	.018	..	.050	..	.109	..	.115	..	.220	..	.353	
	60.00	.039	..	.093	..	.080	..	.119	..	.149	..	.259	..	.354	
	65.00	.001	..	.194	..	.127	..	.143	..	.186	..	.317	..	.286	
	70.00	.029	..	..	..	..	..	..	..	..	..	..	..	.291	
	75.00	.239	..	.181	..	.099	..	.054	..	.032	..	.230	..	.299	
	80.00	.025	..	.056	..	.019	..	.094	..	.121	..	.231	..	.303	
85.00	.009	..	.015	..	.063	..	.105	..	.166	..	.277	..	.314		
90.00	.005	..	.033	..	.104	..	.152	..	.212	..	.338	..	.319		
95.00	.010	..	.091	..	.147	..	.199	..	.246	..	.354	..	.308		
GAP			.778	..	.690	..	.468	..	.508	..	.423	..			
UPPER SURFACE	$M = 1.00 \quad \alpha = 11.4^\circ$														
	.00	.302	..	.441	..	.459	..	.008	..	.692	..	.750	..	.608	
	1.25	.153	..	1.080	..	1.057	..	1.004	..	.787	..	.699	..	.546	
	2.50	.302	..	1.063	..	1.018	..	.992	..	.781	..	.676	..	.538	
	5.00	.418	..	1.094	..	.977	..	.978	..	.779	..	.655	..	.525	
	7.50	.463	..	1.049	..	.896	..	.967	..	.778	..	.666	..	.523	
	10.00	.444	..	1.000	..	.848	..	.945	..	.778	..	.666	..	.510	
	15.00	.468	..	.915	..	.803	..	.899	..	.781	..	.663	..	.497	
	20.00	.438	..	.867	..	.739	..	.842	..	.784	..	.656	..	.482	
	25.00	.426	..	.802	..	.683	..	.813	..	.780	..	.643	..	.468	
	30.00	.417	..	.699	..	.584	..	.781	..	.772	..	.648	..	.457	
	35.00	.404	..	.551	..	.509	..	.750	..	.762	..	.640	..	.448	
	40.00	.402	..	.417	..	.455	..	.722	..	.749	..	.631	..	.443	
	45.00	.411	..	.406	..	.464	..	.689	..	.736	..	.615	..	.436	
	50.00	.440	..	.002	..	.520	..	.647	..	.722	..	.596	..	.430	
	55.00	.372	..	.113	..	.529	..	.596	..	.706	..	.575	..	.424	
	60.00	.223	..	.108	..	.520	..	.459	..	.684	..	.550	..	.414	
	65.00	.054	..	.110	..	.493	..	.460	..	.638	..	.523	..	.414	
	70.00	.253	..	.018	..	.436	..	.429	..	.715	..	.503	..	.415	
75.00	.989	..	.830	..	.644	..	.612	..	.646	..	.504	..	.406		
80.00	.641	..	.831	..	.670	..	.618	..	.689	..	.512	..	.403		
85.00	.513	..	.783	..	.643	..	.586	..	.694	..	.515	..	.398		
90.00	.527	..	.722	..	.601	..	.555	..	.663	..	.506	..	.393		
95.00	.444	..	.645	..	.576	..	.521	..	.620	..	.492	..	.389		
LOWER SURFACE	1.25	.472	..	.647	..	.588	..	.579	..	.531	..	.517	..	.481	
	2.50	.577	..	.606	..	.554	..	.521	..	.500	..	.493	..	.442	
	5.00	.692	..	.546	..	.489	..	.481	..	.438	..	.417	..	.374	
	7.50	.620	..	.494	..	.445	..	.428	..	.388	..	.367	..	.309	
	10.00	.578	..	.466	..	.406	..	.428	..	.388	..	.348	..	.255	
	15.00	.528	..	.398	..	.349	..	.315	..	.291	..	.267	..	.151	
	20.00	.446	..	.344	..	.293	..	.270	..	.235	..	.210	..	.048	
	25.00	.412	..	.301	..	.248	..	.221	..	.188	..	.158	..	.102	
	30.00	.368	..	.262	..	.209	..	.185	..	.149	..	.126	..	.153	
	35.00	.310	..	.225	..	.175	..	.146	..	.110	..	.071	..	.188	
	40.00	.271	..	.190	..	.139	..	.109	..	.074	..	.034	..	.214	
	45.00	.243	..	.151	..	.107	..	.069	..	.036	..	.002	..	.259	
	50.00	.190	..	.108	..	.072	..	.038	..	.006	..	.007	..	.285	
	55.00	.181	..	.070	..	.048	..	.002	..	.049	..	.135	..	.247	
	60.00	.138	..	.006	..	.019	..	.016	..	.107	..	.169	..	.235	
	65.00	.108	..	.034	..	.083	..	.105	..	.099	..	.256	..	.258	
	70.00	.034	..	..	..	..	..	..	..	..	..	..	..	.281	
	75.00	.153	..	.253	..	.182	..	.152	..	.071	..	.101	..	.302	
	80.00	.125	..	.123	..	.047	..	.018	..	.049	..	.140	..	.321	
85.00	.094	..	.072	..	.003	..	.064	..	.103	..	.206	..	.342		
90.00	.050	..	.017	..	.087	..	.110	..	.157	..	.268	..	.342		
95.00	.033	..	.032	..	.189	..	.164	..	.202	..	.305	..	.365		
GAP			.706	..	.704	..	.544	..	.726	..	.481	..			

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

TABLE III								
PRESSURE COEFFICIENT, P, AT:								
PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
M = 1.00 $\alpha = 15.9^\circ$								
UPPER SURFACE	.00	.207	.786	.865	.653	1.149	.712	.627
	1.25	.270	1.163	1.104	.829	.552	.719	.575
	2.50	.482	1.146	1.042	.821	.548	.684	.576
	5.00	.646	1.159	1.068	.814	.548	.649	.567
	7.50	.690	1.164	1.053	.811	.553	.648	.576
	10.00	.684	1.156	1.064	.812	.582	.627	.573
	15.00	.676	1.105	1.067	.837	.623	.631	.574
	20.00	.623	1.076	1.049	.871	.667	.627	.567
	25.00	.579	1.056	1.033	.937	.690	.631	.564
	30.00	.547	1.036	.987	.959	.695	.633	.559
	35.00	.542	1.007	.965	.931	.697	.636	.552
	40.00	.511	.998	.961	.881	.695	.631	.547
	45.00	.514	.965	.974	.850	.693	.612	.541
	50.00	.536	.954	1.045	.822	.689	.580	.533
	55.00	.458	.954	1.059	.691	.678	.558	.520
	60.00	.462	.928	.986	.739	.648	.556	.528
	65.00	.431	.900	.900	.725	.773	.556	.530
	70.00	.403	.884	.854	.772	.597	.564	.528
	75.00	.359	.788	.847	.841	.630	.564	.525
80.00	.364	.783	.768	.877	.644	.556	.520	
85.00	.362	.755	.664	.842	.636			
90.00	.300	.710	.616	.771	.624			
95.00	.311	.641						
LOWER SURFACE	1.25	.418	.692	.598	.594	.538	.509	.476
	2.50	.599	.703	.624	.596	.558	.539	.482
	5.00	.777	.627	.587	.576	.527	.499	.444
	7.50	.782	.596	.553	.530	.487	.456	.390
	10.00	.736	.531	.520	.494	.451	.441	.343
	15.00	.682	.484	.468	.428	.399	.367	.246
	20.00	.600	.437	.414	.381	.344	.309	.148
	25.00	.554	.395	.371	.332	.297	.260	.065
	30.00	.504	.353	.330	.299	.256	.212	.009
	35.00	.448	.319	.297	.253	.213	.166	.062
	40.00	.405	.275	.257	.213	.175	.118	.120
	45.00	.376	.229	.221	.173	.136	.072	.154
	50.00	.319	.193	.186	.129	.096	.023	.187
	55.00	.308	.147	.113	.092	.053	.039	.211
	60.00	.263	.095	.051	.047	.022	.113	.171
	65.00	.227			.012	.015	.145	.203
	70.00	.127	.330	.248	.230	.149	.014	.253
	75.00	.017	.198	.106	.055	.040	.125	.269
	80.00	.235	.131	.050	.009	.045	.169	.271
85.00	.176	.071	.013	.045	.100	.208	.300	
90.00	.118	.009	.067	.104	.153	.271	.338	
95.00	.079	.622	.709	.663	.628	.483	.377	
GAP								
M = 1.03 $\alpha = 0.3^\circ$								
UPPER SURFACE	.00	.252	.573	.507	.846	.544	.525	.449
	1.25	.074	.001	.051	.054	.180	.304	.189
	2.50	.078	.009	.030	.059	.113	.130	.142
	5.00	.074	.003	.034	.054	.101	.116	.110
	7.50	.070	.008	.044	.079	.075	.084	.023
	10.00	.068	.028	.067	.074	.056	.078	.022
	15.00	.042	.043	.080	.068	.057	.042	.015
	20.00	.012	.062	.042	.076	.051	.053	.098
	25.00	.020	.096	.087	.078	.056	.083	.113
	30.00	.031	.093	.095	.092	.073	.079	.081
	35.00	.055	.049	.114	.105	.087	.087	.028
	40.00	.083	.238	.145	.124	.122	.111	.033
	45.00	.102	.297	.194	.166	.163	.158	.086
	50.00	.105	.394	.259	.223	.220	.235	.174
	55.00	.202	.430	.362	.301	.306	.280	.213
	60.00	.342	.418	.386	.378	.361	.272	.213
	65.00	.472	.350	.346	.371	.374	.262	.218
	70.00	.507	.771	.475	.408	.374	.301	.212
	75.00	.513	.825	.484	.413	.380	.297	.212
80.00	.465	.735	.467	.413	.380	.290	.232	
85.00	.421	.656	.463	.421	.381	.275	.226	
90.00	.324	.540	.464	.428		.268		
95.00								
LOWER SURFACE	1.25	.226	.012	.036	.067	.193	.257	.358
	2.50	.186	.005	.018	.051	.121	.185	.260
	5.00	.139	.014	.032	.000	.114	.174	.254
	7.50	.091	.005	.044	.037	.129	.166	.214
	10.00	.070	.005	.057	.053	.141	.130	.220
	15.00	.044	.036	.088	.114	.152	.185	.248
	20.00	.001	.054	.130	.131	.172	.214	.302
	25.00	.006	.075	.145	.163	.207	.238	.288
	30.00	.025	.090	.182	.191	.218	.252	.254
	35.00	.053	.112	.185	.215	.256	.276	.284
	40.00	.058	.131	.208	.245	.281	.298	.333
	45.00	.073	.161	.235	.278	.317	.333	.349
	50.00	.092	.189	.245	.300	.352	.409	.379
	55.00	.125	.209	.273	.318	.365	.437	.399
	60.00	.144	.223	.281	.308	.317	.363	.334
	65.00	.144						.286
	70.00	.184		.131	.193	.200	.253	.335
	75.00	.160	.040	.168	.174	.212	.291	.351
	80.00	.167	.154	.148	.163	.232	.243	.185
85.00	.178	.154	.159	.198	.232	.258	.193	
90.00	.190	.146	.178	.216	.243	.286	.189	
95.00	.186	.106	.137	.225	.298	.323		
GAP		.780	.537	.425				

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 1.03 \quad \alpha = 3.8^\circ$								
	.00	.459	.357	.254	.529	.110	.150	.239	
	1.25	.114	.637	.788	.727	.685	.656	.673	
	2.50	.088	.579	.677	.754	.681	.644	.626	
	5.00	.085	.239	.551	.663	.609	.469	.472	
	7.50	.088	.230	.284	.559	.516	.268	.342	
	10.00	.096	.219	.287	.348	.304	.222	.218	
	15.00	.112	.214	.289	.278	.082	.191	.178	
	20.00	.121	.214	.284	.097	.082	.144	.181	
	25.00	.145	.219	.284	.067	.073	.101	.103	
	30.00	.152	.222	.057	.032	.046	.067	.056	
	35.00	.151	.236	.016	.003	.011	.022	.040	
	40.00	.166	.244	.055	.049	.039	.019	.030	
	45.00	.168	.091	.097	.108	.090	.066	.044	
	50.00	.221	.219	.141	.160	.152	.117	.082	
	55.00	.160	.236	.171	.196	.193	.161	.146	
	60.00	.072	.144	.189	.240	.219	.174	.191	
	65.00	.217	.108	.186	.240	.227	.165	.221	
	70.00	.337	.099	.217	.232	.241	.157	.213	
	75.00	.542	.737	.485	.425	.381	.299	.197	
	80.00	.532	.759	.501	.425	.404	.295	.195	
	85.00	.521	.683	.497	.424	.390	.294	.201	
	90.00	.501	.606	.482	.431	.392	.288	.199	
95.00	.448	.510	.469	.433	.393	.281	.199		
LOWER SURFACE	1.25	.329	.353	.357	.341	.348	.353	.308	
	2.50	.333	.290	.289	.260	.277	.278	.234	
	5.00	.304	.235	.215	.225	.191	.178	.169	
	7.50	.266	.189	.171	.178	.136	.126	.103	
	10.00	.227	.177	.144	.135	.099	.119	.062	
	15.00	.201	.118	.097	.105	.061	.055	.046	
	20.00	.149	.086	.053	.029	.008	.005	.057	
	25.00	.146	.056	.022	.007	.039	.026	.192	
	30.00	.101	.027	.012	.039	.073	.063	.242	
	35.00	.063	.000	.036	.078	.107	.091	.263	
	40.00	.047	.019	.068	.116	.131	.122	.269	
	45.00	.027	.019	.084	.159	.130	.173	.269	
	50.00	.033	.079	.139	.197	.155	.200	.287	
	55.00	.023	.077	.177	.213	.162	.259	.286	
	60.00	.045	.122	.216	.179	.187	.297	.284	
	65.00	.076	.198	.267	.219	.223	.327	.241	
	70.00	.086						.237	
	75.00	.305	.015	.040	.010	.050	.252	.231	
	80.00	.091	.056	.041	.092	.117	.241	.241	
	85.00	.089	.080	.073	.103	.153	.265	.251	
	90.00	.100	.090	.099	.140	.192	.269	.253	
	95.00	.102	.095	.135	.174	.219	.278	.243	
	GAP			.771	.615	.395	.443	.513	
UPPER SURFACE	$M = 1.03 \quad \alpha = 5.8^\circ$								
	.00	.278	.171	.076	.423	.140	.197	.241	
	1.25	.308	.844	.904	.879	.891	.905	.669	
	2.50	.244	.795	.867	.913	.910	.918	.626	
	5.00	.204	.675	.830	.857	.864	.831	.466	
	7.50	.182	.388	.751	.806	.794	.794	.342	
	10.00	.192	.315	.721	.742	.780	.763	.219	
	15.00	.187	.294	.452	.717	.688	.617	.177	
	20.00	.187	.286	.332	.542	.487	.276	.181	
	25.00	.205	.284	.307	.176	.162	.231	.102	
	30.00	.206	.280	.290	.086	.073	.163	.059	
	35.00	.204	.280	.061	.040	.035	.096	.039	
	40.00	.214	.304	.008	.020	.010	.048	.030	
	45.00	.213	.031	.057	.076	.051	.003	.044	
	50.00	.267	.147	.104	.135	.098	.054	.082	
	55.00	.230	.182	.134	.182	.148	.094	.147	
	60.00	.013	.106	.153	.237	.179	.118	.192	
	65.00	.206	.117	.153	.226	.189	.117	.220	
	70.00	.294	.047	.181	.238	.244	.116	.214	
	75.00	.604	.741	.508	.449	.401	.322	.211	
	80.00	.665	.749	.532	.449	.413	.318	.195	
	85.00	.507	.675	.584	.451	.417	.310	.195	
	90.00	.470	.605	.482	.455	.417	.301	.197	
95.00	.444	.522	.469	.452	.415	.291	.197		
LOWER SURFACE	1.25	.390	.485	.478	.443	.439	.456	.309	
	2.50	.428	.414	.404	.357	.369	.385	.237	
	5.00	.409	.347	.326	.227	.281	.286	.170	
	7.50	.384	.299	.277	.274	.227	.231	.104	
	10.00	.342	.277	.246	.231	.192	.216	.060	
	15.00	.311	.213	.196	.155	.149	.147	.045	
	20.00	.248	.175	.145	.111	.099	.089	.056	
	25.00	.237	.141	.108	.065	.062	.042	.241	
	30.00	.190	.110	.073	.029	.023	.041	.264	
	35.00	.149	.080	.039	.015	.013	.061	.268	
	40.00	.127	.059	.002	.035	.066	.106	.268	
	45.00	.108	.024	.040	.042	.084	.166	.266	
	50.00	.047	.004	.093	.080	.134	.208	.285	
	55.00	.055	.012	.132	.113	.136	.254	.282	
	60.00	.087	.073	.137	.138	.184	.289	.242	
	65.00	.001	.163	.139				.235	
	70.00	.026						.230	
	75.00	.028	.094	.132	.048	.019	.222	.242	
	80.00	.029	.025	.089	.065	.095	.236	.242	
	85.00	.029	.073	.084	.080	.135	.263	.250	
	90.00	.047	.066	.061	.117	.175	.296	.253	
	95.00	.038	.035	.111	.158	.213	.303	.242	
	GAP			.756	.617	.401	.468	.532	

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
$M = 1.03 \quad \alpha = 7.8^\circ$							
UPPER SURFACE							
0.00	.484	-.024	-.085	-.308	-.352	-.423	-.063
1.25	.521	-.963	1.008	-.960	1.002	-.969	-.921
2.50	.430	-.920	-.967	1.017	1.012	-.969	-.900
5.00	.359	-.889	-.964	-.968	-.975	-.897	-.783
7.50	.304	-.763	-.903	-.925	-.935	-.862	-.774
10.00	.260	-.548	-.881	-.880	-.913	-.788	-.756
15.00	.267	-.390	-.807	-.865	-.839	-.587	-.541
20.00	.263	-.360	-.640	-.812	-.644	-.464	-.289
25.00	.273	-.348	-.439	-.578	-.428	-.411	-.133
30.00	.268	-.342	-.385	-.368	-.329	-.390	-.111
35.00	.265	-.346	-.195	-.315	-.283	-.369	-.102
40.00	.271	-.357	-.076	-.217	-.255	-.361	-.088
45.00	.289	-.172	-.081	-.024	-.224	-.364	-.093
50.00	.319	-.067	-.088	-.123	-.197	-.324	-.119
55.00	.476	-.124	-.099	-.164	-.161	-.317	-.169
60.00	.044	-.070	-.133	-.267	-.167	-.312	-.198
65.00	.158	-.114	-.144	-.274	-.142	-.293	-.230
70.00	.242	-.000	-.170	-.295	-.214	-.247	-.231
75.00	.661	-.753	-.543	-.462	-.425	-.430	-.233
80.00	.634	-.756	-.565	-.457	-.448	-.435	-.224
85.00	.511	-.693	-.526	-.457	-.425	-.437	-.224
90.00	.443	-.627	-.496	-.460	-.402	-.394	-.226
95.00	.445	-.545	-.486	-.457	-.384	-.375	-.218
LOWER SURFACE							
1.25	.422	.571	.541	.513	.504	.225	.420
2.50	.499	.502	.476	.430	.444	.442	.344
5.00	.494	.435	.394	.367	.365	.332	.269
7.50	.484	.384	.349	.336	.309	.294	.198
10.00	.435	.358	.313	.293	.273	.281	.146
15.00	.401	.289	.260	.223	.220	.204	.042
20.00	.329	.246	.208	.160	.162	.124	-.075
25.00	.308	.209	.166	.144	.118	.064	-.133
30.00	.258	.174	.125	.114	.081	.066	-.201
35.00	.211	.143	.090	.081	.054	.016	-.252
40.00	.186	.116	.044	.047	.018	-.025	-.276
45.00	.163	.080	-.083	-.028	-.013	-.073	-.295
50.00	.103	.047	-.024	-.018	-.043	-.107	-.310
55.00	.104	.028	-.064	-.052	-.078	-.166	-.310
60.00	.074	-.044	-.032	-.074	-.097	-.221	-.284
65.00	.041	-.140	-.077	-.091	-.136	-.261	-.226
70.00	.006	.238	.145	.096	.081	-.165	-.230
75.00	.013	.114	.088	.044	.070	-.187	-.244
80.00	.013	.101	.025	.062	.110	-.237	-.253
85.00	.006	.068	-.058	.103	.152	-.285	-.267
90.00	.023	-.041	-.103	.149	.194	-.306	-.258
GAP		.722	-.631	-.425	-.472	-.419	
$M = 1.03 \quad \alpha = 11.4^\circ$							
UPPER SURFACE							
0.00	.305	-.382	-.396	-.054	-.680	-.695	-.479
1.25	.101	1.004	.986	-.930	-.730	-.664	-.634
2.50	.241	.988	.945	-.918	-.725	-.623	-.624
5.00	.365	1.014	.900	-.901	-.723	-.623	-.604
7.50	.413	.972	.889	-.861	-.723	-.635	-.593
10.00	.421	.925	.788	-.806	-.725	-.635	-.577
15.00	.388	.804	.681	-.750	-.728	-.630	-.562
20.00	.372	.743	.607	-.728	-.725	-.620	-.546
25.00	.364	.648	.530	-.695	-.717	-.630	-.532
30.00	.351	.511	-.463	-.676	-.704	-.623	-.523
35.00	.344	.375	-.411	-.647	-.689	-.615	-.516
40.00	.358	.347	-.421	-.618	-.679	-.601	-.509
45.00	.378	.050	-.477	-.588	-.664	-.589	-.504
50.00	.334	.161	-.488	-.540	-.648	-.567	-.496
55.00	.172	.151	-.483	-.416	-.629	-.549	-.488
60.00	.004	.077	-.447	-.324	-.608	-.512	-.483
65.00	.302	.024	-.415	-.392	-.633	-.495	-.476
70.00	.917	.769	-.593	-.581	-.606	-.516	-.473
75.00	.577	.771	-.587	-.589	-.647	-.518	-.467
80.00	.444	.722	-.557	-.532	-.626	-.508	-.463
85.00	.476	-.584	-.589	-.501	-.689	-.493	-.460
90.00	.393						
LOWER SURFACE							
1.25	.469	.674	.616	.597	.555	.539	.465
2.50	.594	.635	.581	.545	.526	.514	.487
5.00	.735	.578	.517	.507	.462	.439	.358
7.50	.651	.526	.472	.458	.414	.390	.290
10.00	.609	.498	.435	.418	.376	.376	.258
15.00	.563	.427	.381	.348	.317	.298	.133
20.00	.479	.377	.325	.296	.263	.236	.028
25.00	.444	.335	.278	.253	.219	.185	-.057
30.00	.395	.294	.237	.217	.181	.144	-.132
35.00	.343	.259	.206	.181	.141	.099	-.183
40.00	.304	.286	.167	.140	.104	.062	-.223
45.00	.279	.185	.139	.104	.067	.004	-.248
50.00	.226	.142	.107	.067	.045	-.058	-.290
55.00	.218	.108	.084	.033	.007	-.102	-.331
60.00	.174	.039	.088	.016	.063	-.128	-.291
65.00	.145	.018	.013	-.059	.071	-.210	-.268
70.00	.088						-.290
75.00	.148	.213	.189	.114	.038		-.314
80.00	.161	.138	.088	.021	.133		-.331
85.00	.123	.105	.030	.020	.088		-.354
90.00	.075	.062	.012	.071	.113		-.377
95.00	.086	.005	.063	.128	.189		-.405
GAP		.654	-.656	-.521	-.681	-.473	



TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.60 $\alpha = 0.0^\circ$								
	0.00	.017	.465	.434	.447	.406	.399	.271	
	1.25	.106	.160	.242	.300	.378	.496	.456	
	2.50	.039	.123	.185	.236	.284	.317	.338	
	5.00	.013	.113	.178	.164	.231	.256	.261	
	7.50	.031	.126	.166	.183	.225	.239	.260	
	10.00	.051	.133	.173	.188	.219	.230	.245	
	15.00	.082	.154	.184	.213	.206	.217	.210	
	20.00	.117	.182	.213	.216	.219	.226	.206	
	25.00	.128	.190	.217	.225	.225	.227	.188	
	30.00	.145	.202	.227	.234	.231	.227	.183	
	35.00	.154	.217	.235	.241	.234	.226	.176	
	40.00	.159	.232	.244	.249	.243	.225	.180	
	45.00	.163	.247	.248	.254	.241	.224	.173	
	50.00	.199	.247	.244	.250	.241	.219	.162	
	55.00	.218	.254	.250	.247	.233	.203	.141	
	60.00	.239	.269	.249	.248	.221	.184	.128	
	70.00	.282	.750	.490	.303	.269	.180	.118	
	75.00	.219	.003	.103	.156	.138	.158	.102	
80.00	.088	.057	.153	.171	.159	.129	.084		
85.00	.106	.080	.156	.165	.166	.125	.074		
90.00	.099	.090	.181	.178	.159	.117	.070		
95.00	.089	.115	.184	.191	.172				
LOWER SURFACE	1.25	.159	.040	.088	.036	.206	.221	.173	
	2.50	.091	.036	.001	.005	.102	.098	.122	
	5.00	.030	.042	.015	.029	.084	.103	.052	
	7.50	.004	.056	.081	.055	.053	.069	.017	
	10.00	.009	.066	.092	.011	.034	.055	.006	
	15.00	.033	.069	.090	.002	.029	.026	.023	
	20.00	.047	.070	.093	.000	.025	.028	.041	
	25.00	.062	.068	.093	.010	.030	.031	.034	
	30.00	.074	.060	.093	.019	.039	.031	.033	
	35.00	.087	.034	.093	.039	.057	.041	.032	
	40.00	.087	.008	.093	.061	.086	.061	.034	
	45.00	.082	.056	.086	.099	.122	.088	.033	
	50.00	.051	.118	.141	.151	.176	.133	.037	
	55.00	.004	.234	.235	.227	.253	.196	.044	
	60.00	.096	.291	.309	.312	.321	.253	.032	
	65.00	.296	.278	.302	.308	.320	.233	.035	
	70.00	.503						.038	
	75.00	1.095	.672	.340	.295	.229	.164	.047	
	80.00	.523	.735	.351	.296	.235	.157	.059	
85.00	.328	.704	.367	.304	.235	.147	.079		
90.00	.281	.623	.374	.314	.239	.136	.090		
95.00	.118	.510	.374	.322	.246	.133	.085		
GAP									
UPPER SURFACE	M = 0.60 $\alpha = 3.8^\circ$								
	0.00	.021	.200	.483	.224	.454	.354	.577	
	1.25	.157	1.054	1.383	1.274	.995	.931	.975	
	2.50	.231	.581	.714	.878	.856	.803	.825	
	5.00	.256	.436	.547	.610	.753	.742	.696	
	7.50	.242	.385	.443	.533	.673	.674	.618	
	10.00	.257	.354	.406	.490	.611	.583	.541	
	15.00	.252	.340	.382	.453	.510	.534	.407	
	20.00	.274	.320	.368	.405	.457	.467	.358	
	25.00	.275	.320	.368	.388	.424	.421	.310	
	30.00	.282	.315	.352	.356	.389	.379	.259	
	35.00	.271	.317	.345	.349	.367	.344	.258	
	40.00	.268	.315	.337	.336	.345	.322	.245	
	45.00	.269	.326	.330	.338	.337	.280	.237	
	50.00	.291	.330	.320	.319	.315	.257	.223	
	55.00	.295	.320	.304	.303	.301	.233	.204	
	60.00	.297	.317	.279	.266	.276	.206	.192	
	65.00	.309	.383	.273	.266	.247	.177	.195	
	70.00	.333	.635	.361	.252	.248	.200	.178	
75.00	.271	.031	.152	.224	.202	.166	.164		
80.00	.132	.073	.174	.196	.182	.160	.167		
85.00	.138	.072	.170	.182	.175	.142	.160		
90.00	.116	.078	.180	.180	.171	.132	.150		
95.00	.100	.078	.178	.179					
LOWER SURFACE	1.25	.309	.373	.408	.465	.466	.479	.398	
	2.50	.283	.294	.339	.361	.384	.355	.341	
	5.00	.245	.216	.255	.260	.319	.311	.239	
	7.50	.204	.169	.236	.213	.265	.258	.168	
	10.00	.178	.139	.179	.206	.226	.224	.124	
	15.00	.137	.107	.146	.173	.194	.166	.087	
	20.00	.107	.085	.126	.149	.166	.143	.002	
	25.00	.087	.067	.112	.136	.150	.127	.010	
	30.00	.057	.064	.100	.127	.143	.113	.007	
	35.00	.053	.070	.111	.133	.143	.105	.036	
	40.00	.044	.083	.124	.148	.147	.123	.047	
	45.00	.037	.121	.153	.164	.173	.152	.054	
	50.00	.045	.173	.192	.202	.211	.200	.061	
	55.00	.069	.267	.266	.265	.268	.230	.057	
	60.00	.165	.321	.310	.338	.316	.209	.050	
	65.00	.367	.296	.311	.322	.317		.073	
	70.00	.579					.143	.081	
	75.00	1.002	.586	.287	.251	.209	.136	.094	
	80.00	.671	.465	.295	.259	.214	.128	.107	
85.00	.220	.638	.310	.269	.213	.120	.109		
90.00	.142	.544	.332	.281	.221	.129	.106		
95.00	.047	.414	.327	.286	.222				
GAP									

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, $P_i$ AT						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M 0.60 $\alpha$ 6.0°							
	1.00	.008	-.677	-.782	-.431	-.830	-.741	-.770
	1.25	.397	1.146	-.945	-.970	-.981	1.003	-.912
	2.50	.468	1.043	-.914	-.947	-.965	.962	-.892
	5.00	.457	.878	-.877	-.917	-.928	.954	-.851
	7.50	.410	.757	-.827	-.884	-.890	.915	-.838
	10.00	.426	.672	-.756	-.842	-.847	.891	-.806
	15.00	.394	.569	-.683	-.728	-.744	.824	-.729
	20.00	.407	.499	-.604	-.637	-.663	.779	-.666
	25.00	.403	.456	-.558	-.565	-.598	.723	-.589
	30.00	.397	.430	-.511	-.507	-.547	.645	-.531
	35.00	.370	.418	-.472	-.468	-.497	.558	-.482
	40.00	.359	.403	-.442	-.427	-.451	.475	-.457
	45.00	.362	.403	-.414	-.396	-.414	.396	-.425
	50.00	.374	.397	-.386	-.367	-.374	.340	-.403
	55.00	.365	.380	-.358	-.341	-.341	.299	-.388
	60.00	.361	.368	-.323	-.318	-.308	.262	-.366
	65.00	.370	.359	-.306	-.299	-.269	.227	-.359
	70.00	.377	.619	-.302	-.292	-.230	.185	-.354
	75.00	.314	.101	-.205	-.225	-.213	.177	-.327
	80.00	.171	.111	-.189	-.199	-.201	.169	-.324
	85.00	.167	.101	-.189	-.185	-.198	.146	-.294
	90.00	.137	.083	-.168	-.168	-.169	.129	-.257
	95.00	.105	.071	-.163				
LOWER SURFACE	M 0.60 $\alpha$ 6.0°							
	1.25	.345	.462	.461	.512	.483	.490	.419
	2.50	.353	.408	.422	.428	.450	.426	.395
	5.00	.348	.328	.351	.351	.402	.390	.307
	7.50	.313	.275	.339	.310	.342	.341	.229
	10.00	.285	.240	.269	.290	.306	.305	.179
	15.00	.235	.196	.228	.246	.258	.235	.119
	20.00	.198	.160	.196	.214	.224	.204	.050
	25.00	.161	.136	.177	.197	.203	.176	.018
	30.00	.130	.124	.158	.183	.187	.156	.000
	35.00	.121	.124	.161	.182	.184	.144	.017
	40.00	.107	.113	.158	.182	.187	.141	.028
	45.00	.092	.110	.166	.200	.199	.146	.040
	50.00	.098	.210	.216	.229	.229	.164	.049
	55.00	.114	.285	.289	.282	.283	.206	.060
	60.00	.200	.344	.332	.355	.333	.241	.057
	65.00	.397	.324	.334	.349	.339	.223	.062
	70.00	.636						.072
	75.00	.997	.568	.282	.243	.206	.125	.081
	80.00	.429	.684	.292	.252	.211	.119	.095
	85.00	.181	.639	.307	.264	.218	.115	.106
	90.00	.099	.527	.323	.279	.219	.131	.106
	95.00	.005	.367	.308	.266	.219	.131	.112
	GAP		.283	.337	.355	.336	.204	
UPPER SURFACE	M 0.60 $\alpha$ 8.1°							
	1.00	.002	-.990	1.143	-.910	1.024	-.692	-.548
	1.25	.646	1.162	1.038	1.306	-.993	-.802	-.579
	2.50	.703	1.124	1.024	1.300	-.993	-.771	-.569
	5.00	.665	1.063	1.006	1.284	-.985	-.785	-.541
	7.50	.589	.998	.972	1.283	-.970	-.775	-.547
	10.00	.505	.981	.933	1.300	-.958	-.774	-.535
	15.00	.529	.912	.861	1.278	-.925	-.743	-.515
	20.00	.514	.755	.791	1.234	-.922	-.713	-.476
	25.00	.501	.633	.748	1.114	-.879	-.687	-.445
	30.00	.488	.541	.682	.897	-.847	-.666	-.423
	35.00	.482	.487	.610	.678	-.808	-.640	-.403
	40.00	.439	.455	.548	.471	-.763	-.610	-.391
	45.00	.423	.443	.488	.336	-.711	-.570	-.361
	50.00	.426	.433	.431	.261	-.645	-.534	-.344
	55.00	.412	.410	.387	.232	-.585	-.495	-.332
	60.00	.399	.386	.338	.213	-.515	-.460	-.317
	65.00	.404	.367	.321	.206	-.486	-.409	-.313
	70.00	.409	.600	.351	.230	-.358	-.372	-.311
	75.00	.342	.152	.351	.161	-.314	-.356	-.287
	80.00	.200	.137	.284	.138	-.314	-.345	-.283
	85.00	.189	.131	.181	.125	-.278	-.330	-.279
	90.00	.151	.081	.177	.126	-.258	-.286	-.259
	95.00	.101	.050	.145	.129	-.199	-.263	-.251
LOWER SURFACE	M 0.60 $\alpha$ 8.1°							
	1.25	.349	.488	.471	.520	.490	.487	.422
	2.50	.384	.469	.467	.482	.489	.445	.408
	5.00	.438	.399	.410	.417	.452	.417	.325
	7.50	.404	.383	.407	.373	.399	.371	.245
	10.00	.380	.313	.338	.359	.362	.333	.205
	15.00	.326	.264	.293	.304	.308	.266	.141
	20.00	.280	.224	.254	.278	.270	.231	.109
	25.00	.237	.196	.230	.246	.242	.204	.018
	30.00	.199	.180	.207	.227	.219	.174	.002
	35.00	.185	.173	.205	.219	.212	.155	.019
	40.00	.169	.176	.220	.217	.219	.147	.027
	45.00	.147	.196	.246	.252	.243	.166	.036
	50.00	.148	.235	.304	.299	.287	.203	.055
	55.00	.158	.308	.385	.378	.338	.244	.052
	60.00	.235	.350	.360	.367	.344	.229	.064
	65.00	.488						.087
	70.00	.673						.094
	75.00	1.003	.585	.278	.247	.251	.178	.123
	80.00	.355	.707	.288	.253	.256	.179	.123
	85.00	.189	.644	.302	.266	.263	.179	.134
	90.00	.061	.502	.319	.288	.288	.200	.134
	95.00	.046	.303	.295	.268	.268	.224	.148
	GAP		.311	.362	.369	.345	.211	

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

TABLE IV								
PRESSURE COEFFICIENT, P, AT.								
PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
M = 0.60 $\alpha = 12.1^\circ$								
UPPER SURFACE	0.00	-.004	-.1.854	-.1.556	-.1.046	-.775	-.488	-.411
	1.25	-.1.253	-.1.714	-.1.175	-.911	-.624	-.442	-.356
	2.50	-.1.377	-.1.759	-.1.190	-.911	-.624	-.442	-.349
	5.00	-.1.241	-.1.842	-.1.221	-.907	-.618	-.432	-.334
	7.50	-.1.059	-.1.966	-.1.236	-.907	-.611	-.429	-.342
	10.00	-.1.053	-.2.120	-.1.260	-.908	-.608	-.427	-.338
	15.00	-.825	-.2.115	-.1.304	-.890	-.592	-.415	-.337
	20.00	-.752	-.2.115	-.1.375	-.878	-.576	-.404	-.317
	25.00	-.691	-.1.963	-.1.394	-.858	-.566	-.393	-.313
	30.00	-.644	-.947	-.1.351	-.857	-.541	-.389	-.304
	35.00	-.577	-.940	-.1.303	-.840	-.530	-.375	-.284
	40.00	-.538	-.940	-.1.216	-.827	-.521	-.361	-.274
	45.00	-.516	-.981	-.1.111	-.803	-.517	-.352	-.266
	50.00	-.500	-.903	-.984	-.782	-.514	-.348	-.255
	55.00	-.475	-.988	-.836	-.747	-.509	-.338	-.251
	60.00	-.451	-.969	-.691	-.718	-.492	-.333	-.251
	65.00	-.443	-.932	-.545	-.712	-.489	-.319	-.238
	70.00	-.427	-.935	-.454	-.678	-.485	-.301	-.235
	75.00	-.357	-.917	-.270	-.638	-.485	-.295	-.234
	80.00	-.226	-.087	-.168	-.586	-.499	-.287	-.222
	85.00	-.192	-.046	-.143	-.559	-.512	-.278	-.212
	90.00	-.149		-.109	-.518			
	95.00	-.114	-.011					
LOWER SURFACE	1.25	-.280	-.467	-.438	-.503	-.473	-.471	-.408
	2.50	-.375	-.542	-.519	-.479	-.504	-.444	-.405
	5.00	-.549	-.515	-.502	-.479	-.483	-.429	-.336
	7.50	-.556	-.478	-.437	-.433	-.435	-.384	-.274
	10.00	-.539	-.439	-.386	-.419	-.396	-.346	-.223
	15.00	-.481	-.386	-.343	-.366	-.342	-.278	-.158
	20.00	-.422	-.340	-.309	-.327	-.292	-.239	-.084
	25.00	-.367	-.281	-.261	-.295	-.260	-.201	-.014
	30.00	-.322	-.268	-.257	-.267	-.229	-.161	-.001
	35.00	-.298	-.260	-.230	-.246	-.205	-.137	-.038
	40.00	-.273	-.229	-.200	-.231	-.191	-.120	-.065
	45.00	-.247	-.202	-.176	-.231	-.187	-.125	-.092
	50.00	-.244	-.151	-.125	-.230	-.196	-.125	-.124
	55.00	-.238	-.122	-.093	-.230	-.196	-.125	-.127
	60.00	-.204	-.093	-.063	-.231	-.196	-.125	-.144
	65.00	-.189	-.063	-.033	-.231	-.196	-.125	-.146
	70.00	-.169	-.033	-.003	-.231	-.196	-.125	-.152
	75.00	-.150	-.003		-.231	-.196	-.125	-.152
	80.00	-.130			-.231	-.196	-.125	-.157
	85.00	-.110			-.231	-.196	-.125	-.170
	90.00	-.095			-.231	-.196	-.125	
	95.00	-.075			-.231	-.196	-.125	
	CAP							
M = 0.85 $\alpha = 0.0^\circ$								
UPPER SURFACE	0.00	-.022	-.509	-.480	-.715	-.460	-.453	-.307
	1.25	-.169	-.093	-.147	-.223	-.311	-.426	-.458
	2.50	-.104	-.074	-.119	-.188	-.244	-.299	-.370
	5.00	-.035	-.074	-.123	-.166	-.213	-.251	-.284
	7.50	-.012	-.074	-.131	-.156	-.218	-.244	-.253
	10.00	-.007	-.101	-.142	-.170	-.224	-.238	-.253
	15.00	-.041	-.133	-.167	-.215	-.237	-.260	-.248
	20.00	-.092	-.151	-.190	-.216	-.256	-.275	-.237
	25.00	-.114	-.174	-.217	-.237	-.255	-.271	-.218
	30.00	-.128	-.191	-.229	-.249	-.267	-.279	-.210
	35.00	-.143	-.207	-.245	-.244	-.278	-.276	-.212
	40.00	-.151	-.225	-.269	-.257	-.291	-.270	-.202
	45.00	-.178	-.256	-.272	-.278	-.291	-.264	-.188
	50.00	-.195	-.285	-.287	-.276	-.292	-.253	-.164
	55.00	-.221	-.299	-.289	-.271	-.276	-.233	-.139
	60.00	-.239	-.318	-.289	-.266	-.252	-.198	-.137
	65.00	-.259	-.332	-.284	-.257	-.244	-.162	-.120
	70.00	-.280	-.332	-.284	-.257	-.244	-.143	-.099
	75.00	-.302	-.332	-.284	-.257	-.244	-.137	-.096
	80.00	-.323	-.332	-.284	-.257	-.244	-.128	-.081
	85.00	-.343	-.332	-.284	-.257	-.244	-.127	-.081
	90.00	-.363	-.332	-.284	-.257	-.244	-.127	-.081
	95.00	-.383	-.332	-.284	-.257	-.244	-.127	-.081
LOWER SURFACE	1.25	-.203	-.067	-.044	-.007	-.164	-.207	-.153
	2.50	-.130	-.054	-.035	-.011	-.064	-.073	-.106
	5.00	-.062	-.055	-.035	-.041	-.060	-.097	-.036
	7.50	-.024	-.066	-.035	-.043	-.030	-.066	-.001
	10.00	-.007	-.072	-.041	-.048	-.015	-.053	-.026
	15.00	-.027	-.082	-.043	-.050	-.012	-.051	-.051
	20.00	-.045	-.087	-.043	-.050	-.014	-.051	-.063
	25.00	-.067	-.084	-.043	-.050	-.014	-.051	-.047
	30.00	-.085	-.073	-.043	-.050	-.014	-.051	-.036
	35.00	-.103	-.066	-.043	-.050	-.014	-.051	-.039
	40.00	-.121	-.058	-.043	-.050	-.014	-.051	-.049
	45.00	-.139	-.050	-.043	-.050	-.014	-.051	-.058
	50.00	-.157	-.042	-.043	-.050	-.014	-.051	-.068
	55.00	-.175	-.034	-.043	-.050	-.014	-.051	-.078
	60.00	-.193	-.026	-.043	-.050	-.014	-.051	-.088
	65.00	-.211	-.018	-.043	-.050	-.014	-.051	-.098
	70.00	-.229	-.010	-.043	-.050	-.014	-.051	-.108
	75.00	-.247	-.002	-.043	-.050	-.014	-.051	-.118
	80.00	-.265	-.004	-.043	-.050	-.014	-.051	-.128
	85.00	-.283	-.006	-.043	-.050	-.014	-.051	-.138
	90.00	-.301	-.008	-.043	-.050	-.014	-.051	-.148
	95.00	-.319	-.010	-.043	-.050	-.014	-.051	-.158
	CAP							

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, $C_p$ , AT							
		0.135b/2	0.25b/2	0.46b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
UPPER SURFACE	M = 0.85 $\alpha = 4.0^\circ$								
	.00	.027	.123	-	.017	.231	-.117	-.129	-.381
	1.25	.051	.917	-	1.124	-	1.245	-	1.253
	2.50	.156	.731	-	1.126	-	1.192	-	1.202
	5.00	.207	.451	-	.803	-	1.029	-	1.048
	7.50	.203	.405	-	.537	-	.899	-	.981
	10.00	.236	.379	-	.487	-	.805	-	.902
	15.00	.243	.362	-	.464	-	.643	-	.697
	20.00	.281	.355	-	.455	-	.558	-	.569
	25.00	.226	.358	-	.449	-	.508	-	.455
	30.00	.308	.365	-	.447	-	.468	-	.358
	35.00	.296	.376	-	.447	-	.447	-	.304
	40.00	.298	.384	-	.467	-	.418	-	.294
	45.00	.323	.414	-	.480	-	.398	-	.282
	50.00	.347	.432	-	.460	-	.388	-	.280
	55.00	.360	.436	-	.384	-	.362	-	.270
	60.00	.373	.475	-	.387	-	.324	-	.261
LOWER SURFACE	.65.00	.398	.522	-	.305	-	.277	-	.250
	70.00	.424	.681	-	.382	-	.249	-	.253
	75.00	.476	.084	-	.170	-	.265	-	.249
	80.00	.282	.117	-	.202	-	.239	-	.241
	85.00	.238	.025	-	.206	-	.217	-	.243
	90.00	.184	-.098	-	.219	-	.161	-	.241
	95.00	.124	-.106	-	.216	-	.202	-	.222
	1.25	.341	.375	.404	.470	.478	.505	.411	
	2.50	.327	.299	.331	.345	.369	.371	.358	
	5.00	.282	.225	.258	.261	.320	.329	.261	
	7.50	.240	.179	.287	.205	.267	.275	.192	
	10.00	.215	.148	.190	.212	.233	.243	.139	
	15.00	.165	.114	.159	.179	.199	.186	.071	
	20.00	.133	.089	.137	.160	.171	.165	-.003	
	25.00	.098	.073	.185	.146	.156	.144	-.027	
	30.00	.073	.071	.117	.142	.150	.124	-.038	
	35.00	.065	.081	.127	.147	.149	.117	-.047	
40.00	.055	.106	.143	.158	.162	.117	-.054		
45.00	.047	.154	.171	.185	.187	.130	-.069		
50.00	.059	.225	.224	.230	.228	.161	-.080		
55.00	.091	.313	.295	.291	.287	.212	-.089		
60.00	.211	.321	.331	.355	.324	.233	-.080		
65.00	.420	.281	.326	.341	.320	.211	-.085		
70.00	.650	-	-	-	-	-	-.095		
75.00	.960	-.619	-.319	-.263	-.228	-.160	-.100		
80.00	.508	-.676	-.325	-.268	-.232	-.152	-.115		
85.00	.275	-.636	-.332	-.276	-.236	-.147	-.120		
90.00	.201	-.562	-.344	-.284	-.241	-.147	-.119		
95.00	.110	-.452	-.339	-.263	-.243	-.151	-.121		
GAP			.238	.333	.347	.327	.197		
M = 0.85 $\alpha = 6.0^\circ$									
UPPER SURFACE	.00	.013	-.114	-.237	-.015	-.378	-.324	-.466	
	1.25	.184	1.148	1.304	1.331	1.397	1.100	.632	
	2.50	.308	1.114	1.201	1.241	1.380	1.040	.819	
	5.00	.351	.951	.951	1.048	1.309	1.029	.764	
	7.50	.338	.758	.821	.963	1.245	1.001	.761	
	10.00	.384	.570	.758	.903	1.195	.958	.736	
	15.00	.360	.465	.595	.824	1.055	.883	.679	
	20.00	.391	.448	.595	.760	.945	.826	.633	
	25.00	.406	.450	.576	.716	.878	.801	.581	
	30.00	.411	.455	.564	.641	.746	.736	.526	
	35.00	.388	.464	.561	.585	.637	.667	.464	
	40.00	.381	.475	.569	.513	.531	.642	.448	
	45.00	.409	.498	.573	.453	.456	.569	.431	
	50.00	.427	.516	.558	.408	.388	.543	.415	
	55.00	.446	.519	.472	.375	.341	.498	.396	
	60.00	.461	.545	.372	.347	.308	.447	.390	
	LOWER SURFACE	.65.00	.469	.590	.328	.315	.269	.379	.367
70.00		.497	.692	.377	.277	.260	.356	.366	
75.00		.563	.154	.210	.301	.246	.347	.351	
80.00		.378	.141	.218	.270	.227	.326	.328	
85.00		.306	.118	.226	.240	.209	.296	.327	
90.00		.221	.087	.226	.226	.203	.240	.309	
95.00		.140	.074	.217	.210	.196	.220	.286	
1.25		.373	.464	.471	.463	.517	.524	.427	
2.50		.395	.395	.412	.410	.449	.416	.395	
5.00		.375	.313	.335	.334	.398	.387	.303	
7.50		.331	.262	.301	.285	.337	.336	.240	
10.00		.303	.232	.260	.281	.302	.298	.180	
15.00		.244	.185	.223	.239	.253	.235	.112	
20.00		.203	.154	.192	.214	.222	.206	.027	
25.00		.164	.131	.175	.194	.202	.180	.007	
30.00		.133	.123	.162	.188	.191	.155	.031	
35.00		.123	.126	.166	.182	.186	.144	.045	
40.00	.104	.145	.174	.189	.193	.138	.034		
45.00	.092	.183	.199	.210	.209	.145	.069		
50.00	.103	.243	.241	.246	.242	.166	.078		
55.00	.123	.326	.310	.303	.298	.210	.086		
60.00	.238	.342	.340	.371	.339	.238	.080		
65.00	.703	.300	.346	.359	.340	.220	.088		
70.00	.962	-	-	-	-	-	.106		
75.00	.492	.610	.318	.265	.233	.174	.111		
80.00	.234	.697	.384	.271	.238	.158	.131		
85.00	.170	.655	.331	.279	.250	.162	.139		
90.00	.090	.560	.340	.289	.257	.172	.145		
95.00		.416	.390	.284	.255	.189	.163		
GAP			.256	.353	.364	.343	.202		

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, P, AT						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.85	$\alpha = 8.0^\circ$						
	0.00	.012	-.384	-.433	-.188	-.595	-.402	-.434
	1.25	.303	1.215	1.384	1.464	1.177	.731	.544
	2.50	.449	1.153	1.204	1.423	1.168	.680	.537
	5.00	.495	1.035	1.081	1.312	1.138	.699	.510
	7.50	.484	.969	1.024	1.234	1.110	.697	.522
	10.00	.528	.912	.985	1.181	1.091	.690	.518
	15.00	.486	.815	.931	1.096	1.039	.660	.516
	20.00	.495	.714	.860	1.027	1.002	.631	.493
	25.00	.495	.634	.825	.973	.966	.597	.464
	30.00	.491	.573	.771	.865	.908	.584	.458
	35.00	.454	.552	.739	.784	.861	.567	.438
	40.00	.460	.547	.714	.698	.806	.543	.433
	45.00	.484	.562	.677	.609	.753	.516	.407
	50.00	.504	.580	.614	.525	.702	.500	.390
	55.00	.519	.586	.508	.457	.655	.479	.375
	60.00	.532	.606	.415	.397	.601	.464	.354
LOWER SURFACE	65.00	.532	.644	.354	.334	.500	.446	.340
	70.00	.556	.688	.261	.284	.531	.433	.329
	75.00	.626	.725	.256	.300	.459	.385	.304
	80.00	.450	.146	.244	.267	.432	.384	.302
	85.00	.360	.104	.230	.229	.395	.373	.302
	90.00	.232	.066	.226	.216	.364	.349	.293
	95.00	.128	.024	.201	.203	.310	.342	.274
	1.25	.391	.528	.513	.465	.528	.523	.439
	2.50	.456	.476	.473	.450	.480	.447	.420
	5.00	.470	.399	.407	.396	.447	.424	.332
	7.50	.432	.349	.370	.360	.390	.374	.279
	10.00	.401	.312	.328	.342	.357	.339	.213
	15.00	.359	.263	.288	.296	.301	.271	.143
	20.00	.291	.229	.250	.266	.270	.239	.054
	25.00	.266	.202	.229	.244	.245	.205	.013
	30.00	.209	.187	.209	.227	.225	.178	.017
	35.00	.193	.186	.207	.222	.214	.156	.041
40.00	.174	.196	.211	.221	.216	.143	.059	
45.00	.154	.225	.230	.235	.226	.144	.081	
50.00	.160	.273	.264	.265	.252	.160	.100	
55.00	.172	.348	.328	.317	.301	.199	.117	
60.00	.276	.373	.370	.388	.348	.232	.111	
65.00	.483	.330	.368	.377	.349	.216	.129	
70.00	.741	-	-	-	-	-	.148	
75.00	.958	-.593	-.319	-.275	-.324	-.269	.157	
80.00	.421	-.720	-.328	-.392	-.331	-.257	.172	
85.00	.188	-.664	-.366	-.308	-.383	-.273	.183	
90.00	.107	-.338	-.346	-.317	-.362	-.296	.189	
95.00	.036	-.291	-.322	-.297	-.345	-.322	.189	
GAP	-	-	.373	.380	.350	.196	.197	
M = 0.85		$\alpha = 12.1^\circ$						
UPPER SURFACE	0.00	.002	-.752	-.838	-.515	-.729	-.456	-.372
	1.25	.539	1.461	1.165	.843	.715	.487	.341
	2.50	.730	1.454	1.118	.835	.702	.458	.335
	5.00	.799	1.424	1.103	.826	.695	.475	.324
	7.50	.794	1.419	1.083	.832	.686	.473	.321
	10.00	.828	1.390	1.063	.835	.681	.452	.317
	15.00	.783	1.375	1.039	.825	.663	.434	.303
	20.00	.752	1.355	1.029	.814	.646	.420	.281
	25.00	.726	1.357	1.086	.799	.627	.412	.280
	30.00	.693	1.358	.920	.767	.606	.408	.263
	35.00	.644	1.357	.945	.745	.595	.401	.276
	40.00	.627	1.356	.918	.728	.587	.391	.260
	45.00	.636	1.309	.889	.710	.576	.391	.258
	50.00	.635	1.209	.850	.690	.564	.386	.250
	55.00	.619	1.151	.825	.665	.554	.383	.239
	60.00	.581	1.053	.767	.630	.521	.388	.267
	LOWER SURFACE	65.00	.510	.997	.740	.620	.529	.385
70.00		.497	.933	.709	.585	.513	.360	.269
75.00		.557	.898	.675	.603	.501	.338	.273
80.00		.444	.847	.681	.573	.486	.340	.269
85.00		.425	.847	.558	.563	.483	.340	.269
90.00		.336	.847	.470	.554	.457	.325	.270
95.00		.233	.098	-.470	-	-	-	-
1.25		.351	.574	.526	.495	.509	.504	.441
2.50		.507	.576	.503	.499	.512	.464	.442
5.00		.620	.523	.503	.471	.484	.453	.371
7.50		.595	.479	.477	.429	.435	.408	.314
10.00		.571	.438	.432	.417	.401	.371	.259
15.00		.438	.388	.383	.364	.343	.302	.190
20.00		.434	.343	.340	.325	.297	.266	.104
25.00		.379	.309	.310	.294	.265	.230	.052
30.00		.332	.288	.281	.266	.237	.192	.008
35.00		.313	.277	.265	.246	.214	.166	.008
40.00	.282	.275	.254	.232	.204	.148	.077	
45.00	.257	.289	.259	.233	.203	.142	.119	
50.00	.253	.384	.276	.249	.221	.194	.162	
55.00	.284	.380	.284	.289	.253	.242	.170	
60.00	.339	.412	.374	.373	.328	.221	.188	
65.00	.534	.374	.378	.369	.342	-	.191	
70.00	.777	-	-	-	-	.390	.191	
75.00	1.103	-.702	-.684	.613	.636	.381	.183	
80.00	.281	-.028	-.634	.679	.638	.368	.187	
85.00	.218	.357	.603	.708	.685	.350	.201	
90.00	.029	.088	.606	.693	.603	.332	.228	
95.00	.069	.353	.351	.371	.342	.192	-	

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TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT										
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2				
UPPER SURFACE	$M = 0.90 \quad \alpha = 0.1^\circ$												
	.00	.034	.526	-	.486	-	.730	-	.464	-	.460	-	.320
	1.25	.195	.075	-	.128	-	.402	-	.323	-	.422	-	.480
	2.50	.132	.053	-	.103	-	.175	-	.254	-	.314	-	.389
	5.00	.064	.054	-	.104	-	.117	-	.225	-	.257	-	.291
	7.50	.038	.070	-	.121	-	.150	-	.232	-	.260	-	.326
	10.00	.017	.086	-	.131	-	.167	-	.239	-	.260	-	.330
	15.00	.022	.117	-	.158	-	.217	-	.222	-	.254	-	.350
	20.00	.075	.132	-	.184	-	.232	-	.242	-	.279	-	.303
	25.00	.093	.155	-	.216	-	.261	-	.265	-	.303	-	.258
	30.00	.111	.174	-	.230	-	.263	-	.268	-	.310	-	.239
	35.00	.122	.194	-	.255	-	.263	-	.267	-	.323	-	.232
	40.00	.134	.212	-	.284	-	.269	-	.268	-	.332	-	.233
	45.00	.143	.245	-	.319	-	.264	-	.264	-	.337	-	.227
	50.00	.163	.271	-	.354	-	.276	-	.267	-	.306	-	.215
	55.00	.208	.287	-	.334	-	.288	-	.267	-	.259	-	.201
	60.00	.226	.328	-	.257	-	.277	-	.263	-	.239	-	.175
65.00	.244	.398	-	.244	-	.284	-	.277	-	.210	-	.148	
70.00	.295	.756	-	.520	-	.315	-	.283	-	.205	-	.145	
75.00	.378	.046	-	.085	-	.214	-	.236	-	.182	-	.124	
80.00	.206	.080	-	.165	-	.230	-	.222	-	.152	-	.106	
85.00	.202	.095	-	.183	-	.212	-	.208	-	.151	-	.106	
90.00	.166	.108	-	.220	-	.218	-	.207	-	.137	-	.089	
95.00	.162	.142	-	.230	-	.221	-	.199	-	.136	-	.090	
LOWER SURFACE	1.25	.230	.046	-	.046	-	.009	-	.163	-	.212	-	.157
	2.50	.160	.033	-	.034	-	.012	-	.065	-	.070	-	.110
	5.00	.090	.037	-	.035	-	.038	-	.058	-	.098	-	.039
	7.50	.051	.051	-	.029	-	.042	-	.030	-	.065	-	.004
	10.00	.029	.058	-	.038	-	.020	-	.014	-	.049	-	.030
	15.00	.006	.072	-	.038	-	.008	-	.013	-	.018	-	.069
	20.00	.030	.078	-	.024	-	.003	-	.013	-	.024	-	.011
	25.00	.053	.081	-	.021	-	.009	-	.029	-	.025	-	.060
	30.00	.070	.069	-	.000	-	.023	-	.041	-	.025	-	.047
	35.00	.069	.036	-	.025	-	.046	-	.058	-	.037	-	.042
	40.00	.074	.016	-	.057	-	.074	-	.089	-	.058	-	.042
	45.00	.071	.097	-	.104	-	.120	-	.130	-	.094	-	.034
	50.00	.051	.194	-	.172	-	.181	-	.193	-	.148	-	.069
	55.00	.025	.288	-	.257	-	.265	-	.273	-	.218	-	.082
	60.00	.163	.271	-	.293	-	.337	-	.315	-	.242	-	.066
	65.00	.352	.236	-	.289	-	.324	-	.304	-	.213	-	.066
	70.00	.598		-		-		-		-		-	.075
75.00	.512	.688	-	.377	-	.304	-	.261	-	.193	-	.082	
80.00	.378	.705	-	.384	-	.305	-	.262	-	.184	-	.096	
85.00	.307	.678	-	.391	-	.305	-	.259	-	.174	-	.110	
90.00	.195	.622	-	.401	-	.309	-	.262	-	.168	-	.115	
95.00		.539	-	.395	-	.314	-	.260	-	.164	-	.115	
GAP			.193		.312		.341		.318		.210		
UPPER SURFACE	$M = 0.90 \quad \alpha = 4.0^\circ$												
	.00	.028	.214	-	.090	-	.341	-	.004	-	.022	-	.260
	1.25	.002	.806	-	.981	-	1.151	-	1.221	-	1.281	-	1.299
	2.50	.102	.708	-	.910	-	1.121	-	1.209	-	1.217	-	1.280
	5.00	.163	.403	-	.866	-	.954	-	1.077	-	1.189	-	1.162
	7.50	.166	.351	-	.475	-	.665	-	1.016	-	1.100	-	1.146
	10.00	.200	.320	-	.441	-	.494	-	.961	-	1.048	-	1.089
	15.00	.210	.338	-	.418	-	.481	-	.855	-	.980	-	.918
	20.00	.258	.327	-	.414	-	.489	-	.826	-	.849	-	.648
	25.00	.274	.327	-	.424	-	.495	-	.800	-	.857	-	.502
	30.00	.277	.331	-	.431	-	.490	-	.800	-	.857	-	.336
	35.00	.273	.349	-	.444	-	.511	-	.802	-	.879	-	.223
	40.00	.283	.365	-	.485	-	.530	-	.804	-	.890	-	.196
	45.00	.298	.391	-	.508	-	.558	-	.804	-	.895	-	.184
	50.00	.324	.414	-	.508	-	.558	-	.804	-	.895	-	.215
	55.00	.344	.422	-	.525	-	.584	-	.804	-	.895	-	.235
	60.00	.363	.447	-	.554	-	.611	-	.804	-	.895	-	.235
65.00	.375	.502	-	.517	-	.628	-	.804	-	.895	-	.230	
70.00	.403	.739	-	.375	-	.628	-	.804	-	.895	-	.232	
75.00	.514	.325	-	.292	-	.611	-	.804	-	.895	-	.235	
80.00	.353	.338	-	.256	-	.611	-	.804	-	.895	-	.227	
85.00	.178	.224	-	.243	-	.611	-	.804	-	.895	-	.222	
90.00	.166	.150	-	.249	-	.611	-	.804	-	.895	-	.218	
95.00	.266	.139	-	.247	-	.611	-	.804	-	.895	-	.205	
LOWER SURFACE	1.25	.385	.370	-	.388	-	.459	-	.466	-	.490	-	.405
	2.50	.340	.295	-	.316	-	.328	-	.369	-	.355	-	.348
	5.00	.294	.224	-	.243	-	.236	-	.304	-	.315	-	.252
	7.50	.246	.181	-	.213	-	.184	-	.253	-	.262	-	.188
	10.00	.220	.147	-	.180	-	.194	-	.223	-	.231	-	.131
	15.00	.170	.115	-	.147	-	.163	-	.189	-	.176	-	.059
	20.00	.135	.088	-	.128	-	.145	-	.162	-	.156	-	.034
	25.00	.103	.073	-	.117	-	.134	-	.147	-	.135	-	.073
	30.00	.075	.071	-	.110	-	.109	-	.143	-	.116	-	.069
	35.00	.066	.082	-	.117	-	.136	-	.144	-	.109	-	.096
	40.00	.055	.112	-	.133	-	.150	-	.160	-	.109	-	.092
	45.00	.046	.165	-	.163	-	.179	-	.184	-	.121	-	.091
	50.00	.039	.239	-	.212	-	.227	-	.229	-	.153	-	.092
	55.00	.034	.325	-	.287	-	.291	-	.288	-	.201	-	.099
	60.00	.225	.317	-	.383	-	.353	-	.383	-	.220	-	.092
	65.00	.433	.263	-	.380	-	.337	-	.318	-	.193	-	.097
	70.00	.667		-		-		-		-		-	.109
75.00	.988	.657	-	.382	-	.276	-	.236	-	.173	-	.116	
80.00	.471	.695	-	.384	-	.279	-	.236	-	.168	-	.127	
85.00	.295	.663	-	.388	-	.284	-	.244	-	.168	-	.127	
90.00	.199	.678	-	.389	-	.290	-	.250	-	.168	-	.124	
95.00	.145	.463	-	.385	-	.287	-	.253	-	.168	-	.126	
GAP			.218		.332		.346		.324		.179		

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TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
$M = 0.90 \quad \alpha = 6.00^\circ$							
UPPER SURFACE	1.00	.021	.014	.103	.142	.214	.470
	1.25	.104	.062	.197	.352	.391	.660
	2.50	.232	.106	.173	.355	.385	.985
	5.00	.481	.841	.953	.441	.294	.985
	7.50	.281	.656	.788	.137	.1249	.965
	10.00	.329	.496	.683	1.069	1.218	.905
	15.00	.318	.419	.593	.866	1.104	.796
	20.00	.343	.405	.542	.858	1.047	.726
	25.00	.357	.414	.534	.806	.950	.638
	30.00	.360	.413	.531	.755	.883	.530
	35.00	.359	.426	.538	.689	.794	.519
	40.00	.359	.435	.550	.608	.717	.498
	45.00	.366	.461	.586	.633	.663	.478
	50.00	.388	.486	.596	.656	.586	.457
	55.00	.408	.489	.604	.644	.419	.442
	60.00	.426	.507	.528	.506	.325	.406
	65.00	.433	.547	.380	.359	.278	.403
	70.00	.455	.746	.420	.270	.292	.388
	75.00	.575	.425	.350	.393	.274	.363
	80.00	.410	.252	.316	.252	.230	.358
	85.00	.430	.158	.295	.231	.191	.344
	90.00	.428			.209	.172	.318
	95.00	.329	.102	.264	.221		
LOWER SURFACE	1.00	.393	.470	.467	.471	.506	.426
	1.25	.416	.395	.404	.391	.433	.395
	2.50	.390	.315	.327	.318	.373	.301
	5.00	.347	.268	.293	.267	.320	.238
	7.50	.340	.238	.253	.266	.282	.178
	10.00	.260	.192	.217	.226	.241	.105
	15.00	.240	.160	.189	.208	.210	.006
	20.00	.240	.171	.184	.184	.194	.040
	25.00	.177	.134	.156	.174	.183	.066
	30.00	.145	.131	.137	.175	.181	.084
	35.00	.134	.136	.167	.181	.191	.092
	40.00	.118	.158	.167	.204	.210	.098
	45.00	.103	.199	.158	.245	.248	.101
	50.00	.115	.261	.303	.306	.302	.093
	55.00	.136	.342	.346	.372	.341	.099
	60.00	.256	.290	.342	.357	.340	.117
	65.00	.469					.127
	70.00	.729				.231	.142
	75.00	.996	.678	.358	.267	.238	.158
	80.00	.427	.741	.358	.273	.247	.161
	85.00	.268	.686	.363	.283	.254	.166
	90.00	.188	.586	.369	.289	.251	.177
	95.00	.129	.433	.348	.474	.343	.193
GAP							
$M = 0.90 \quad \alpha = 8.00^\circ$							
UPPER SURFACE	1.00	.009	.177	.277	.038	.425	.446
	1.25	.012	.121	.218	1.444	.211	.639
	2.50	.057	.097	.141	1.434	.218	.628
	5.00	.128	.086	.999	1.365	.181	.591
	7.50	.412	.914	.909	1.300	.152	.604
	10.00	.413	.861	.859	1.238	.139	.631
	15.00	.461	.790	.801	1.072	.1083	.580
	20.00	.437	.682	.737	.935	1.050	.523
	25.00	.451	.569	.714	.870	1.002	.521
	30.00	.455	.480	.680	.795	.919	.497
	35.00	.455	.464	.670	.762	.876	.481
	40.00	.443	.468	.664	.718	.833	.451
	45.00	.443	.502	.667	.679	.786	.431
	50.00	.460	.534	.657	.627	.726	.407
	55.00	.480	.542	.657	.560	.660	.387
	60.00	.494	.560	.608	.470	.502	.377
	65.00	.500	.586	.582	.379	.524	.364
	70.00	.521	.766	.482	.328	.510	.340
	75.00	.634	.505	.434	.419	.471	.340
	80.00	.477	.351	.364	.350	.436	.389
	85.00	.501	.291	.319	.296	.414	.355
	90.00	.504	.152	.288	.279	.361	.320
	95.00	.388	.051	.252	.257		.313
LOWER SURFACE	1.00	.406	.527	.511	.476	.523	.435
	1.25	.468	.474	.464	.441	.472	.415
	2.50	.475	.396	.394	.376	.436	.331
	5.00	.434	.345	.358	.336	.369	.272
	7.50	.402	.316	.316	.325	.334	.211
	10.00	.338	.275	.275	.277	.285	.139
	15.00	.293	.222	.242	.247	.249	.045
	20.00	.244	.196	.218	.226	.229	.033
	25.00	.205	.183	.200	.211	.212	.062
	30.00	.191	.184	.196	.203	.206	.077
	35.00	.178	.196	.200	.206	.218	.099
	40.00	.158	.229	.218	.223	.217	.137
	45.00	.159	.281	.254	.256	.247	.134
	50.00	.171	.355	.321	.313	.298	.141
	55.00	.282	.370	.363	.383	.344	.159
	60.00	.493	.317	.364	.370	.344	.170
	65.00	.753					.185
	70.00	1.030	.704	.380	.311	.344	.194
	75.00	.376	.795	.393	.327	.367	.201
	80.00	.279	.725	.398	.346	.355	.208
	85.00	.173	.899	.388	.351	.322	
	90.00	.106	.353	.388	.321	.186	
	95.00		.269	.371	.374		
GAP							

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.90 $\alpha = 12.1^\circ$							
UPPER SURFACE	1.00	.001	-.578	-.660	-.452	-.673	-.482
	1.25	.426	-.1354	-.1233	-.865	-.700	-.524
	2.50	.611	-.1364	-.1233	-.872	-.694	-.493
	5.00	.690	-.1352	-.1150	-.881	-.682	-.507
	7.50	.693	-.1345	-.1137	-.892	-.674	-.505
	10.00	.732	-.1318	-.1130	-.893	-.674	-.504
	15.00	.701	-.1257	-.1120	-.853	-.662	-.473
	20.00	.684	-.1241	-.1094	-.835	-.654	-.462
	25.00	.681	-.1241	-.1094	-.809	-.641	-.453
	30.00	.639	-.1130	-.1041	-.782	-.633	-.445
	35.00	.595	-.711	-.993	-.751	-.613	-.439
	40.00	.579	-.489	-.941	-.735	-.602	-.431
	45.00	.591	-.557	-.901	-.716	-.590	-.428
	50.00	.609	-.597	-.859	-.701	-.580	-.425
	55.00	.620	-.584	-.836	-.685	-.570	-.422
	60.00	.635	-.585	-.791	-.668	-.550	-.418
	65.00	.644	-.577	-.734	-.636	-.539	-.411
	70.00	.649	-.449	-.732	-.618	-.522	-.391
LOWER SURFACE	1.00	.706	-.449	-.695	-.833	-.504	-.371
	1.25	.568	-.312	-.644	-.809	-.499	-.371
	1.50	.491	-.203	-.583	-.800	-.499	-.366
	2.50	.408	-.103	-.495	-.585	-.471	-.354
	5.00	.322	-.103	-.495	-.585	-.471	-.354
	7.50	.322	-.103	-.495	-.585	-.471	-.354
	10.00	.322	-.103	-.495	-.585	-.471	-.354
	15.00	.322	-.103	-.495	-.585	-.471	-.354
	20.00	.322	-.103	-.495	-.585	-.471	-.354
	25.00	.322	-.103	-.495	-.585	-.471	-.354
	30.00	.322	-.103	-.495	-.585	-.471	-.354
	35.00	.322	-.103	-.495	-.585	-.471	-.354
	40.00	.322	-.103	-.495	-.585	-.471	-.354
	45.00	.322	-.103	-.495	-.585	-.471	-.354
	50.00	.322	-.103	-.495	-.585	-.471	-.354
	55.00	.322	-.103	-.495	-.585	-.471	-.354
	60.00	.322	-.103	-.495	-.585	-.471	-.354
	65.00	.322	-.103	-.495	-.585	-.471	-.354
	70.00	.322	-.103	-.495	-.585	-.471	-.354
M = 0.94 $\alpha = 0.0^\circ$							
UPPER SURFACE	1.00	.023	-.533	-.496	-.739	-.476	-.468
	1.25	.205	-.072	-.108	-.181	-.299	-.432
	1.50	.147	-.049	-.083	-.155	-.233	-.328
	2.50	.073	-.051	-.085	-.097	-.226	-.289
	5.00	.046	-.067	-.103	-.126	-.240	-.291
	7.50	.028	-.084	-.118	-.167	-.256	-.300
	10.00	.013	-.111	-.147	-.205	-.258	-.305
	15.00	.013	-.128	-.172	-.234	-.285	-.341
	20.00	.066	-.150	-.195	-.258	-.321	-.368
	25.00	.088	-.171	-.220	-.268	-.337	-.377
	30.00	.107	-.191	-.242	-.302	-.365	-.392
	35.00	.127	-.209	-.271	-.332	-.394	-.385
	40.00	.158	-.237	-.299	-.376	-.437	-.378
	45.00	.184	-.266	-.330	-.415	-.470	-.401
	50.00	.205	-.279	-.341	-.409	-.457	-.399
	55.00	.223	-.309	-.370	-.423	-.467	-.423
	60.00	.239	-.370	-.425	-.441	-.487	-.439
	65.00	.277	-.434	-.477	-.477	-.514	-.454
LOWER SURFACE	1.00	.399	-.168	-.201	-.253	-.252	-.140
	1.25	.338	-.185	-.214	-.249	-.252	-.140
	1.50	.267	-.185	-.250	-.248	-.251	-.142
	2.50	.258	-.185	-.271	-.246	-.253	-.143
	5.00	.281	-.186	-.271	-.246	-.253	-.143
	7.50	.281	-.186	-.271	-.246	-.253	-.143
	10.00	.281	-.186	-.271	-.246	-.253	-.143
	15.00	.281	-.186	-.271	-.246	-.253	-.143
	20.00	.281	-.186	-.271	-.246	-.253	-.143
	25.00	.281	-.186	-.271	-.246	-.253	-.143
	30.00	.281	-.186	-.271	-.246	-.253	-.143
	35.00	.281	-.186	-.271	-.246	-.253	-.143
	40.00	.281	-.186	-.271	-.246	-.253	-.143
	45.00	.281	-.186	-.271	-.246	-.253	-.143
	50.00	.281	-.186	-.271	-.246	-.253	-.143
	55.00	.281	-.186	-.271	-.246	-.253	-.143
	60.00	.281	-.186	-.271	-.246	-.253	-.143
	65.00	.281	-.186	-.271	-.246	-.253	-.143
	70.00	.281	-.186	-.271	-.246	-.253	-.143



TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 0.94    α = 4.0°							
	0.00	.024	.273	.171	.430	.115	.093	.151
	1.25	.043	.716	.095	1.013	1.061	1.102	1.130
	2.50	.061	.646	.046	.997	1.059	1.062	1.123
	3.75	.123	.366	.593	.867	.936	1.036	1.016
	5.00	.134	.331	.408	.620	.889	.961	1.021
	7.50	.169	.303	.386	.435	.654	.929	.968
	10.00	.183	.293	.372	.431	.559	.882	.923
	12.50	.224	.298	.372	.447	.474	.790	.828
	15.00	.244	.303	.382	.457	.509	.592	.826
	17.50	.254	.305	.391	.451	.520	.553	.646
	20.00	.241	.323	.404	.472	.541	.580	.509
	22.50	.249	.336	.421	.495	.556	.605	.523
	25.00	.273	.365	.448	.521	.589	.638	.526
	27.50	.295	.389	.473	.558	.615	.673	.508
	30.00	.315	.397	.486	.568	.646	.715	.516
	32.50	.333	.412	.506	.578	.641	.574	.456
	LOWER SURFACE	35.00	.345	.451	.534	.507	.450	.280
37.50		.345	.414	.454	.331	.321	.220	.154
40.00		.360	.306	.431	.529	.605	.255	.133
42.50		.331	.342	.388	.451	.489	.184	.135
45.00		.358	.308	.330	.406	.401	.171	.162
47.50		.358	.237	.346	.383	.347	.137	.163
50.00		.341	.173	.356	.346	.267	.142	.173
52.50		.366	.361	.377	.442	.444	.468	.390
55.00		.350	.290	.306	.304	.338	.323	.329
57.50		.302	.221	.237	.218	.276	.265	.236
60.00		.258	.173	.206	.171	.224	.237	.166
62.50		.231	.145	.176	.179	.193	.204	.120
65.00		.179	.107	.144	.144	.160	.148	.048
67.50		.144	.083	.125	.127	.135	.134	.052
70.00		.106	.066	.116	.111	.124	.116	.098
72.50		.077	.065	.105	.107	.129	.101	.117
75.00		.069	.080	.112	.111	.125	.094	.123
77.50		.054	.116	.125	.125	.141	.110	.126
80.00	.043	.174	.154	.155	.171	.142	.142	
82.50	.060	.251	.201	.208	.218	.142	.163	
85.00	.098	.334	.278	.278	.280	.192	.172	
87.50	.239	.315	.309	.339	.312	.208	.155	
90.00	.445	.850	.305	.322	.305	.183	.149	
92.50	.680	1.057	.763	.438	.332	.278	.143	
95.00	.450	.817	.434	.335	.276	.182	.147	
GAP		.755	.434	.336	.278	.184	.147	
		.673	.438	.337	.278	.189	.148	
		.554	.428	.331	.268	.192	.147	
M = 0.94    α = 6.0°								
UPPER SURFACE	0.00	.019	.093	.006	.247	.075	.075	.343
	1.25	.051	.054	1.147	1.250	1.281	1.306	1.326
	2.50	.177	.042	1.147	1.231	1.277	1.214	1.311
	3.75	.239	.775	1.076	1.155	1.190	1.236	1.185
	5.00	.250	.576	.971	1.096	1.152	1.192	1.218
	7.50	.289	.479	.757	1.051	1.122	1.154	1.194
	10.00	.290	.416	.506	.925	1.067	1.105	1.093
	12.50	.310	.397	.461	.610	1.031	1.058	1.072
	15.00	.332	.390	.456	.535	.977	1.055	1.046
	17.50	.340	.387	.465	.516	.742	1.026	1.044
	20.00	.318	.398	.474	.537	.629	1.014	.934
	22.50	.319	.405	.495	.558	.607	.974	.856
	25.00	.339	.430	.514	.584	.628	.966	.758
	27.50	.361	.453	.540	.612	.653	.965	.701
	30.00	.373	.488	.566	.633	.679	.936	.768
	32.50	.395	.476	.580	.633	.679	.936	.742
	35.00	.412	.507	.580	.633	.679	.936	.664
	LOWER SURFACE	37.50	.419	.518	.480	.553	.472	.441
40.00		.457	.394	.510	.627	.710	.389	.438
42.50		.389	.411	.421	.521	.535	.291	.349
45.00		.408	.339	.380	.445	.437	.225	.313
47.50		.418	.255	.382	.405	.375	.147	.278
50.00		.389	.186	.368	.357	.282	.133	.264
52.50		.406	.470	.469	.493	.490	.507	.424
55.00		.428	.399	.402	.379	.411	.390	.383
57.50		.397	.320	.387	.304	.346	.322	.293
60.00		.358	.264	.293	.251	.293	.299	.238
62.50		.328	.236	.253	.254	.258	.266	.173
65.00		.270	.192	.218	.217	.217	.207	.101
67.50		.228	.188	.190	.187	.187	.184	.003
70.00		.186	.136	.156	.155	.170	.164	.058
72.50		.150	.138	.157	.154	.160	.131	.107
75.00		.138	.162	.163	.162	.171	.128	.120
77.50		.104	.208	.186	.186	.192	.135	.137
80.00		.116	.274	.285	.289	.235	.162	.156
82.50	.142	.352	.296	.291	.294	.208	.168	
85.00	.269	.334	.334	.358	.331	.250	.154	
87.50	.482	.273	.332	.344	.331	.204	.156	
90.00	.747	.780	.446	.339	.280	.177	.168	
92.50	.466	.777	.445	.342	.277	.165	.168	
95.00	.401	.797	.449	.344	.277	.170	.166	
97.50	.324	.690	.481	.343	.271	.176	.166	
100.00	.221	.511	.438	.338	.261	.181	.168	
GAP		.228	.342	.352	.336	.189		

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
<b>M = 0.94    <math>\alpha = 8.0^\circ</math></b>							
UPPER SURFACE	0.00	.015	-.066	-.164	-.079	-.270	-.244
	1.25	.139	-.1086	-.1163	-.1324	-.1103	-.817
	2.50	.279	-.1109	-.1138	-.1308	-.1090	-.748
	5.00	.338	-.0976	-.1058	-.1249	-.1064	-.783
	7.50	.348	-.0866	-.1035	-.1210	-.1045	-.785
	10.00	.381	-.0799	-.1017	-.1171	-.1035	-.783
	15.00	.394	-.0693	-.0975	-.1075	-.1008	-.785
	20.00	.394	-.0567	-.0900	-.1000	-.983	-.776
	25.00	.405	-.0477	-.0872	-.947	-.751	-.751
	30.00	.407	-.0429	-.0866	-.738	-.881	-.741
	35.00	.378	-.0428	-.0899	-.698	-.829	-.714
	40.00	.378	-.0439	-.0898	-.654	-.783	-.677
	45.00	.396	-.0465	-.0900	-.618	-.743	-.626
	50.00	.414	-.0493	-.0913	-.605	-.702	-.587
	55.00	.433	-.0498	-.0918	-.599	-.667	-.544
	60.00	.446	-.0514	-.0917	-.578	-.623	-.511
	65.00	.455	-.0534	-.0899	-.503	-.548	-.477
	70.00	.469	-.0506	-.0822	-.373	-.396	-.416
LOWER SURFACE	0.00	.593	-.0463	-.0522	-.691	-.544	-.419
	1.25	.435	-.0471	-.0464	-.599	-.506	-.396
	2.50	.455	-.0412	-.0387	-.563	-.482	-.358
	5.00	.466	-.0300	-.0351	-.530	-.430	-.358
	7.50	.424	-.115	-.051	-.330	-.430	-.339
	10.00	.429	-.544	-.523	-.494	-.533	-.442
	15.00	.491	-.484	-.471	-.445	-.468	-.420
	20.00	.492	-.404	-.402	-.373	-.420	-.334
	25.00	.453	-.355	-.367	-.330	-.359	-.273
	30.00	.424	-.320	-.323	-.320	-.327	-.213
	35.00	.358	-.271	-.284	-.272	-.276	-.139
	40.00	.308	-.235	-.235	-.243	-.241	-.036
	45.00	.266	-.207	-.200	-.220	-.216	-.024
	50.00	.226	-.196	-.206	-.202	-.203	-.059
	55.00	.208	-.199	-.200	-.197	-.194	-.082
	60.00	.187	-.214	-.202	-.196	-.197	-.101
	65.00	.168	-.251	-.218	-.214	-.210	-.128
	70.00	.175	-.306	-.252	-.248	-.242	-.163
	75.00	.190	-.378	-.318	-.307	-.296	-.191
	80.00	.308	-.379	-.361	-.378	-.341	-.225
	85.00	.516	-.319	-.362	-.366	-.344	-.209
	90.00	.774	-.054	-.464	-.366	-.392	-.300
	95.00	.471	-.895	-.467	-.378	-.403	-.285
	GAP	.257	-.680	-.459	-.389	-.425	-.286
		.180	-.360	-.441	-.366	-.435	-.289
			-.270	-.368	-.371	-.431	-.299
						-.345	-.186
<b>M = 0.98    <math>\alpha = 0.0^\circ</math></b>							
UPPER SURFACE	0.00	.048	-.561	-.511	-.767	-.494	-.487
	1.25	.244	-.015	-.042	-.101	-.201	-.290
	2.50	.167	-.002	-.088	-.091	-.157	-.216
	5.00	.117	-.003	-.037	-.049	-.162	-.215
	7.50	.093	-.023	-.059	-.084	-.153	-.224
	10.00	.070	-.037	-.074	-.107	-.203	-.243
	15.00	.032	-.066	-.103	-.153	-.253	-.286
	20.00	.021	-.083	-.127	-.180	-.273	-.314
	25.00	.044	-.107	-.166	-.218	-.289	-.331
	30.00	.064	-.129	-.197	-.248	-.315	-.358
	35.00	.075	-.150	-.220	-.277	-.347	-.383
	40.00	.084	-.168	-.250	-.314	-.387	-.419
	45.00	.114	-.199	-.281	-.356	-.412	-.442
	50.00	.166	-.230	-.308	-.388	-.444	-.500
	55.00	.179	-.252	-.342	-.400	-.448	-.506
	60.00	.196	-.304	-.381	-.397	-.392	-.419
	65.00	.227	-.391	-.629	-.464	-.424	-.340
	70.00	.350	-.129	-.161	-.170	-.225	-.380
	75.00	.196	-.172	-.183	-.231	-.280	-.321
LOWER SURFACE	0.00	.224	-.184	-.180	-.240	-.297	-.318
	1.25	.227	-.189	-.215	-.270	-.321	-.344
	2.50	.253	-.142	-.247	-.298	-.339	-.316
	5.00	.271	-.022	-.069	-.009	-.102	-.132
	7.50	.206	-.009	-.045	-.021	-.019	-.004
	10.00	.135	-.015	-.037	-.031	-.023	-.048
	15.00	.093	-.030	-.055	-.028	-.003	-.015
	20.00	.071	-.040	-.029	-.010	-.022	-.004
	25.00	.034	-.074	-.019	-.007	-.021	-.023
	30.00	.004	-.074	-.008	-.002	-.020	-.013
	35.00	.026	-.089	-.023	-.005	-.011	-.005
	40.00	.049	-.076	-.031	-.015	-.007	-.001
	45.00	.056	-.018	-.081	-.034	-.027	-.010
	50.00	.069	-.061	-.077	-.059	-.057	-.024
	55.00	.075	-.148	-.119	-.103	-.101	-.053
	60.00	.043	-.252	-.182	-.165	-.168	-.107
	65.00	.053	-.330	-.268	-.249	-.257	-.188
	70.00	.215	-.299	-.296	-.327	-.316	-.227
	75.00	.388	-.229	-.296	-.318	-.313	-.199
	80.00	.583	-.060	-.538	-.445	-.379	-.312
	85.00	.023	-.910	-.548	-.446	-.380	-.306
	90.00	.482	-.884	-.539	-.441	-.378	-.294
	95.00	.370	-.735	-.537	-.446	-.375	-.281
	GAP	.284	-.688	-.533	-.450	-.371	-.267
			-.194	-.314	-.334	-.327	-.197

TABLE IV  
WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD		PRESSURE COEFFICIENT, $P$ , AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 0.98 \quad \alpha = 4.0^\circ$							
	.00	.045	.332	.235	.494	.192	.177	.036
	1.25	.093	.617	.777	.863	.905	.930	.944
	2.50	.007	.574	.738	.846	.902	.904	.945
	5.00	.074	.288	.484	.729	.787	.876	.854
	7.50	.087	.260	.388	.567	.750	.801	.849
	10.00	.119	.247	.313	.373	.720	.781	.794
	12.50	.137	.249	.313	.362	.501	.742	.678
	15.00	.174	.251	.311	.365	.416	.676	.700
	20.00	.194	.257	.327	.399	.454	.533	.720
	30.00	.212	.257	.333	.394	.465	.485	.563
	35.00	.202	.273	.350	.413	.480	.509	.463
	40.00	.204	.287	.370	.436	.496	.534	.477
	45.00	.228	.314	.393	.465	.529	.567	.491
	50.00	.249	.339	.418	.492	.552	.596	.527
	55.00	.276	.345	.430	.511	.582	.633	.565
	60.00	.288	.364	.446	.516	.595	.663	.586
	65.00	.297	.390	.471	.514	.554	.565	.578
	70.00	.323	.847	.534	.430	.411	.352	.358
75.00	.450	.264	.398	.500	.574	.596	.524	
80.00	.490	.300	.349	.416	.518	.593	.508	
85.00	.314	.287	.297	.372	.470	.495	.479	
90.00	.321	.256	.301	.375	.460	.407	.435	
95.00	.314	.136	.325	.389	.431	.348	.295	
LOWER SURFACE	$M = 0.98 \quad \alpha = 4.0^\circ$							
	1.25	.387	.374	.384	.435	.438	.452	.380
	2.50	.372	.307	.216	.312	.326	.296	.316
	5.00	.348	.237	.248	.228	.266	.264	.223
	7.50	.280	.193	.220	.190	.216	.211	.158
	10.00	.255	.166	.190	.192	.186	.184	.117
	15.00	.202	.130	.165	.157	.149	.130	.042
	20.00	.168	.104	.146	.138	.122	.114	.058
	25.00	.130	.087	.139	.122	.110	.097	.114
	30.00	.100	.087	.129	.115	.103	.080	.135
	35.00	.091	.107	.133	.117	.105	.073	.143
	40.00	.076	.143	.145	.127	.121	.075	.137
	45.00	.065	.208	.171	.155	.151	.088	.159
	50.00	.084	.286	.219	.202	.201	.122	.200
	55.00	.127	.366	.292	.268	.263	.176	.258
	60.00	.272	.338	.324	.330	.296	.193	.255
	65.00	.472	.264	.317	.312	.289	.169	.248
	70.00	.702						.247
	75.00	1.029	.820	.512	.435	.396	.306	.237
80.00	.513	.905	.519	.442	.399	.297	.247	
85.00	.410	.831	.518	.449	.399	.289	.249	
90.00	.350	.728	.520	.459	.403	.282	.249	
95.00	.244	.557	.514	.459	.398	.275	.246	
GAP		.219	.328	.321	.299	.153		
UPPER SURFACE	$M = 0.98 \quad \alpha = 5.0^\circ$							
	.00	.040	.174	.079	.324	.020	.031	.210
	1.25	.013	.848	.972	1.038	1.059	1.071	1.089
	2.50	.105	.864	.962	1.026	1.064	1.024	1.083
	5.00	.167	.597	.858	.951	.980	1.023	.985
	7.50	.180	.438	.779	.873	.947	.980	1.003
	10.00	.218	.379	.705	.799	.924	.961	.975
	12.50	.225	.344	.421	.724	.840	.920	.858
	15.00	.252	.333	.374	.537	.799	.873	.877
	20.00	.268	.334	.386	.467	.799	.860	.890
	30.00	.281	.331	.395	.448	.649	.798	.790
	35.00	.264	.340	.408	.468	.551	.792	.696
	40.00	.267	.346	.429	.487	.535	.780	.722
	45.00	.286	.372	.449	.515	.559	.738	.750
	50.00	.304	.394	.476	.545	.582	.691	.761
	55.00	.323	.401	.486	.562	.618	.674	.767
	60.00	.345	.414	.497	.570	.635	.672	.720
	65.00	.372	.433	.513	.558	.596	.549	.636
	70.00	.498	.336	.487	.591	.632	.414	.648
75.00	.339	.360	.406	.507	.610	.630	.590	
80.00	.361	.336	.343	.435	.561	.547	.590	
85.00	.372	.288	.337	.423	.523	.466	.588	
90.00	.364	.118	.355	.418	.470	.396	.500	
LOWER SURFACE	$M = 0.98 \quad \alpha = 5.0^\circ$							
	1.25	.422	.479	.475	.516	.491	.501	.426
	2.50	.442	.410	.409	.389	.401	.370	.376
	5.00	.418	.332	.336	.308	.339	.334	.285
	7.50	.373	.283	.303	.262	.285	.282	.224
	10.00	.341	.252	.267	.258	.250	.249	.173
	15.00	.287	.209	.234	.217	.209	.192	.102
	20.00	.242	.176	.205	.198	.176	.171	.009
	25.00	.203	.156	.192	.173	.159	.146	.070
	30.00	.167	.148	.176	.159	.146	.127	.103
	35.00	.155	.157	.173	.155	.145	.124	.103
	40.00	.139	.187	.180	.160	.155	.110	.134
	45.00	.122	.182	.191	.160	.177	.116	.160
	50.00	.164	.308	.242	.224	.220	.139	.206
	55.00	.299	.383	.310	.285	.281	.188	.270
	60.00	.506	.365	.346	.353	.318	.214	.277
	65.00	.767	.291	.342	.334	.314	.190	.280
	70.00							.284
	75.00	1.034	.808	.504	.433	.411	.326	.288
80.00	.469	.929	.510	.445	.418	.312	.303	
85.00	.388	.853	.508	.453	.427	.307	.302	
90.00	.305	.732	.513	.462	.430	.306	.303	
95.00	.230	.496	.496	.462	.430	.308	.308	
GAP		.245	.353	.341	.321	.169		

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:							
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2	
		$M = 0.98 \quad \alpha = 7.9^\circ$								
UPPER SURFACE		.00	.029	.015	.079	.159	.167	.155	.398	
	1.25	-.073	-1.026	-1.120	-1.188	-1.189	-1.178	-.929		
	2.50	-.211	-1.058	-1.109	-1.168	-1.191	-1.097	-.918		
	5.00	-.274	-.901	-1.068	-1.118	-1.124	-1.133	-.847		
	7.50	-.287	-.722	-1.017	-1.070	-1.093	-1.100	-.878		
	10.00	-.328	-.616	-.974	-1.035	-1.079	-1.076	-.869		
	15.00	-.326	-.538	-.869	-.956	-1.033	-1.033	-.836		
	20.00	-.340	-.483	-.804	-.901	-1.007	-.984	-.829		
	25.00	-.349	-.445	-.722	-.894	-1.003	-.962	-.807		
	30.00	-.358	-.416	-.687	-.701	-.934	-.902	-.800		
	35.00	-.334	-.411	-.685	-.647	-.902	-.864	-.759		
	40.00	-.335	-.414	-.659	-.617	-.884	-.826	-.751		
	45.00	-.349	-.434	-.619	-.601	-.823	-.777	-.722		
	50.00	-.366	-.456	-.583	-.601	-.739	-.724	-.706		
	55.00	-.385	-.461	-.553	-.619	-.699	-.685	-.685		
	60.00	-.401	-.473	-.544	-.589	-.665	-.641	-.637		
	65.00	-.405	-.487	-.533	-.589	-.587	-.626	-.620		
	70.00	-.420	-.805	-.513	-.422	-.547	-.653	-.599		
75.00	-.547	-.430	-.562	-.658	-.717	-.653	-.599			
80.00	-.392	-.429	-.466	-.580	-.610	-.587	-.591			
85.00	-.414	-.391	-.393	-.491	-.560	-.576	-.588			
90.00	-.428	-.326	-.364	-.453	-.514	-.541	-.566			
95.00	-.408	-.123	-.394	-.427	-.460	-.513	-.544			
LOWER SURFACE	1.25	.450	.555	.534	.506	.536	.523	.451		
	2.50	.509	.494	.478	.447	.465	.418	.426		
	5.00	.508	.418	.408	.375	.413	.395	.338		
	7.50	.471	.370	.374	.334	.353	.344	.270		
	10.00	.440	.335	.333	.323	.316	.310	.224		
	15.00	.376	.286	.295	.276	.267	.244	.149		
	20.00	.327	.246	.260	.245	.232	.218	.039		
	25.00	.280	.224	.240	.228	.211	.192	.029		
	30.00	.242	.214	.221	.205	.196	.164	.069		
	35.00	.226	.217	.215	.196	.189	.148	.099		
	40.00	.204	.237	.235	.195	.192	.135	.117		
	45.00	.183	.277	.230	.209	.210	.135	.150		
	50.00	.195	.333	.263	.246	.243	.150	.204		
	55.00	.210	.403	.388	.303	.299	.190	.279		
	60.00	.332	.395	.367	.373	.344	.221	.296		
	65.00	.539	.329	.366	.360	.344	.202	.320		
	70.00	.806						.339		
	75.00	1.016	.788	.506	.426	.424	.424	.342		
80.00	.425	.561	.514	.441	.427	.405	.354			
85.00	.354	.869	.511	.450	.437	.422	.366			
90.00	.270	.716	.511	.458	.440	.444	.370			
95.00	.194	.316	.480	.449	.436	.468	.376			
GAP			.284	.375	.364	.347	.175			
		$M = 1.00 \quad \alpha = 0.0^\circ$								
UPPER SURFACE		.00	.089	.576	.583	.772	.510	.501	.407	
	1.25	-.280	-.001	-.028	-.084	-.194	-.284	-.365		
	2.50	-.208	.017	.013	.075	.143	.203	.284		
	5.00	-.138	.035	.013	.056	.107	.202	.256		
	7.50	-.112	.007	.044	.078	.166	.209	.269		
	10.00	-.092	.020	.058	.088	.183	.222	.275		
	15.00	-.049	.050	.085	.137	.195	.232	.289		
	20.00	-.002	.066	.109	.164	.216	.264	.332		
	25.00	.024	.089	.136	.192	.252	.292	.369		
	30.00	.044	.110	.154	.200	.269	.309	.374		
	35.00	.057	.134	.178	.232	.292	.337	.370		
	40.00	.063	.150	.203	.259	.321	.364	.388		
	45.00	.094	.176	.230	.294	.360	.399	.413		
	50.00	.125	.204	.260	.328	.393	.432	.425		
	55.00	.148	.217	.285	.364	.426	.480	.449		
	60.00	.168	.231	.317	.385	.437	.504	.448		
	65.00	.179	.280	.356	.388	.406	.459	.406		
	70.00	.207	.307	.373	.470	.467	.368	.341		
75.00	.331	.116	.186	.198	.198	.318	.284			
80.00	.180	.160	.180	.215	.255	.288	.292			
85.00	.108	.172	.168	.227	.275	.297	.291			
90.00	.209	.161	.199	.252	.299	.301	.285			
95.00	.239	.131	.227	.278	.312	.306	.279			
LOWER SURFACE	1.25	.289	.000	.049	.009	.133	.157	.121		
	2.50	.226	.010	.028	.001	.045	.019	.089		
	5.00	.158	.006	.024	.020	.047	.072	.036		
	7.50	.117	.009	.008	.014	.022	.039	.002		
	10.00	.097	.022	.010	.006	.027	.027	.015		
	15.00	.056	.040	.004	.012	.002	.004	.074		
	20.00	.027	.055	.030	.017	.001	.009	.152		
	25.00	.005	.077	.046	.023	.008	.015	.162		
	30.00	.031	.078	.086	.034	.027	.020	.119		
	35.00	.036	.073	.081	.031	.030	.046	.075		
	40.00	.081	.078	.098	.077	.074	.041	.073		
	45.00	.085	.168	.139	.118	.117	.067	.088		
	50.00	.035	.271	.200	.181	.181	.118	.140		
	55.00	.073	.355	.277	.263	.270	.200	.220		
	60.00	.242	.320	.308	.341	.329	.240	.254		
	65.00	.413	.264	.313	.333	.330	.217	.273		
	70.00	.589						.272		
	75.00	.986	.835	.586	.456	.424	.337	.258		
80.00	.582	.884	.534	.458	.427	.331	.261			
85.00	.408	.802	.531	.459	.430	.329	.278			
90.00	.338	.714	.530	.468	.431	.320	.284			
95.00	.268	.608	.527	.476	.438	.313	.279			
GAP			.238	.332	.347	.341	.213			

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 1.00 \quad \alpha = 4.0^\circ$								
	0.00	.083	.389	.262	.511	.214	.203	.013	
	1.25	.113	.601	.770	.858	.895	.908	.939	
	2.50	.088	.588	.788	.843	.892	.886	.942	
	5.00	.046	.265	.463	.733	.786	.863	.846	
	7.50	.061	.240	.289	.579	.748	.798	.847	
	10.00	.092	.223	.297	.360	.719	.777	.805	
	15.00	.112	.225	.292	.340	.513	.739	.685	
	20.00	.122	.230	.294	.363	.391	.681	.702	
	25.00	.170	.234	.303	.377	.427	.540	.728	
	30.00	.186	.236	.312	.374	.440	.461	.587	
	35.00	.179	.252	.347	.393	.456	.484	.469	
	40.00	.183	.261	.347	.413	.474	.508	.469	
	45.00	.209	.291	.369	.439	.501	.540	.471	
	50.00	.230	.315	.396	.467	.527	.568	.505	
	55.00	.249	.321	.408	.486	.557	.603	.547	
LOWER SURFACE	60.00	.266	.337	.421	.491	.569	.637	.570	
	65.00	.274	.362	.446	.491	.539	.598	.580	
	70.00	.293	.380	.465	.428	.489	.401	.574	
	75.00	.424	.243	.390	.503	.563	.555	.554	
	80.00	.273	.284	.341	.413	.522	.560	.538	
	85.00	.295	.274	.288	.357	.464	.509	.556	
	90.00	.302	.254	.282	.355	.450	.443	.555	
	95.00	.292	.120	.384	.369	.427	.402	.495	
	GAP								
	1.25	.401	.394	.400	.455	.453	.465	.389	
	2.50	.390	.326	.333	.330	.347	.314	.332	
	5.00	.344	.287	.266	.248	.287	.281	.239	
	7.50	.301	.216	.238	.200	.235	.231	.190	
	10.00	.276	.187	.208	.207	.206	.204	.133	
	15.00	.223	.150	.184	.178	.171	.148	.061	
	20.00	.187	.124	.168	.159	.148	.131	.041	
25.00	.150	.106	.129	.144	.129	.114	.028		
30.00	.119	.105	.111	.136	.122	.099	.017		
35.00	.109	.118	.155	.137	.123	.091	.018		
40.00	.089	.156	.164	.146	.139	.091	.016		
45.00	.082	.210	.192	.174	.167	.101	.014		
50.00	.102	.314	.238	.221	.215	.131	.028		
55.00	.145	.387	.309	.286	.277	.183	.078		
60.00	.222	.360	.338	.346	.310	.203	.099		
65.00	.490	.281	.334	.328	.303	.181	.013		
70.00	.719						.114		
75.00	.996	.746	.498	.437	.420	.356	.315		
80.00	.490	.883	.507	.445	.426	.348	.324		
85.00	.392	.814	.508	.454	.432	.343	.328		
90.00	.322	.706	.507	.464	.440	.342	.322		
95.00	.233	.586	.583	.468	.445	.345	.318		
GAP		.240	.345	.334	.311	.162			
UPPER SURFACE	$M = 1.00 \quad \alpha = 5.0^\circ$								
	0.00	.033	.206	.103	.346	.047	.056	.181	
	1.25	.037	.844	.959	1.023	1.049	1.062	1.078	
	2.50	.082	.866	.948	1.013	1.053	1.005	1.072	
	5.00	.149	.601	.866	.940	.974	1.011	.970	
	7.50	.157	.421	.797	.879	.941	.972	.992	
	10.00	.198	.362	.731	.819	.918	.950	.969	
	15.00	.225	.326	.412	.748	.854	.914	.864	
	20.00	.229	.311	.382	.548	.821	.869	.879	
	25.00	.254	.311	.363	.448	.815	.866	.886	
	30.00	.258	.310	.375	.425	.673	.815	.808	
	35.00	.244	.317	.385	.444	.545	.808	.726	
	40.00	.248	.326	.406	.463	.517	.798	.757	
	45.00	.263	.351	.429	.490	.535	.759	.787	
	50.00	.284	.372	.457	.520	.559	.692	.801	
	55.00	.306	.377	.464	.543	.593	.665	.784	
LOWER SURFACE	60.00	.322	.394	.474	.550	.613	.659	.784	
	65.00	.331	.410	.489	.541	.587	.574	.688	
	70.00	.347	.479	.501	.418	.433	.444	.686	
	75.00	.477	.320	.477	.506	.639	.598	.671	
	80.00	.319	.342	.407	.506	.608	.611	.647	
	85.00	.340	.321	.382	.429	.569	.570	.652	
	90.00	.354	.285	.317	.408	.533	.519	.652	
	95.00	.347	.103	.338	.406	.474	.468	.574	
	GAP								
	1.25	.438	.498	.488	.531	.500	.511	.434	
	2.50	.462	.425	.422	.404	.413	.380	.387	
	5.00	.434	.352	.351	.326	.349	.342	.299	
	7.50	.393	.303	.320	.277	.297	.291	.242	
	10.00	.365	.270	.284	.278	.265	.258	.188	
	15.00	.308	.225	.251	.237	.225	.201	.119	
	20.00	.265	.196	.224	.213	.193	.161	.008	
25.00	.224	.175	.209	.192	.173	.157	.089		
30.00	.189	.170	.195	.179	.161	.136	.110		
35.00	.175	.180	.192	.174	.158	.121	.122		
40.00	.157	.212	.197	.178	.158	.127	.147		
45.00	.140	.263	.218	.199	.189	.150	.198		
50.00	.155	.331	.260	.238	.230	.198	.275		
55.00	.183	.402	.360	.299	.288	.222	.297		
60.00	.220	.384	.389	.366	.323	.200	.316		
65.00	.284	.399	.389	.348	.323		.326		
70.00	.284	.399	.389	.348	.323		.326		
75.00	.284	.399	.389	.348	.323		.326		
80.00	.284	.399	.389	.348	.323		.326		
85.00	.284	.399	.389	.348	.323		.326		
90.00	.284	.399	.389	.348	.323		.326		
95.00	.284	.399	.389	.348	.323		.326		
GAP		.265	.367	.353	.332	.179			

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
$M = 1.00 \quad \alpha = 7.9^\circ$							
UPPER SURFACE	.00	.004	.060	.030	.201	.115	.097
	1.25	.029	.956	1.048	1.107	1.132	1.133
	2.50	.162	.983	1.038	1.095	1.124	1.127
	5.00	.230	.824	.994	1.034	1.056	1.084
	7.50	.244	.630	.944	.991	1.023	1.049
	10.00	.280	.518	.897	.953	1.004	1.030
	15.00	.282	.451	.766	.883	.962	.992
	20.00	.298	.415	.669	.802	.936	.951
	25.00	.307	.398	.469	.787	.931	.925
	30.00	.314	.376	.434	.636	.854	.925
	35.00	.293	.372	.436	.579	.800	.908
	40.00	.294	.374	.431	.561	.780	.908
	45.00	.311	.393	.473	.554	.753	.885
	50.00	.323	.417	.499	.560	.696	.851
	55.00	.345	.430	.517	.573	.667	.811
	60.00	.364	.443	.525	.580	.646	.768
	65.00	.369	.443	.525	.583	.623	.751
	70.00	.389	.443	.497	.621	.603	.719
	75.00	.311	.390	.441	.556	.639	.723
	80.00	.354	.390	.363	.468	.574	.709
	85.00	.377	.311	.348	.439	.543	.665
	90.00	.391	.103	.362	.420		
	95.00	.378					
LOWER SURFACE	.00		.572	.544	.532	.541	.458
	1.25	.487	.509	.488	.460	.466	.430
	2.50	.525	.430	.418	.389	.416	.340
	5.00	.526	.382	.384	.344	.356	.283
	7.50	.487	.349	.347	.336	.322	.231
	10.00	.457	.299	.307	.336	.322	.158
	15.00	.393	.267	.277	.288	.272	.050
	20.00	.344	.242	.238	.261	.239	.017
	25.00	.299	.232	.231	.236	.214	.059
	30.00	.259	.235	.231	.220	.202	.088
	35.00	.243	.235	.234	.211	.193	.107
	40.00	.219	.254	.247	.211	.198	.139
	45.00	.200	.279	.247	.226	.216	.192
	50.00	.212	.355	.344	.261	.249	.269
	55.00	.227	.424	.344	.316	.305	.292
	60.00	.252	.417	.381	.385	.348	.318
	65.00	.258	.347	.381	.370	.349	.339
	70.00	.258		.494	.421	.435	.363
	75.00	.273		.499	.438	.443	.381
	80.00	.402		.497	.450	.455	.389
	85.00	.339		.497	.459	.460	.401
	90.00	.279		.469	.452	.456	
	95.00	.179		.388	.375	.351	
$M = 1.03 \quad \alpha = 0.0^\circ$							
UPPER SURFACE	.00	.055	.572	.518	.789	.536	.441
	1.25	.205	.025	.046	.063	.184	.273
	2.50	.164	.004	.028	.059	.125	.183
	5.00	.095	.005	.037	.028	.103	.170
	7.50	.069	.024	.052	.079	.141	.180
	10.00	.056	.034	.068	.079	.155	.194
	15.00	.025	.063	.094	.123	.167	.196
	20.00	.024	.077	.120	.146	.186	.229
	25.00	.038	.095	.138	.171	.220	.251
	30.00	.048	.111	.157	.182	.234	.268
	35.00	.072	.137	.174	.211	.255	.295
	40.00	.077	.155	.198	.235	.279	.322
	45.00	.099	.183	.230	.264	.316	.357
	50.00	.129	.208	.262	.295	.348	.389
	55.00	.154	.216	.283	.318	.379	.436
	60.00	.168	.232	.321	.340	.395	.471
	65.00	.184	.262	.357	.357	.422	.453
	70.00	.208	.283	.359	.433	.482	.437
	75.00	.208	.134	.166	.203	.210	.221
	80.00	.188	.169	.183	.186	.223	.286
	85.00	.206	.181	.155	.189	.235	.284
	90.00	.206	.162	.172	.211	.258	.268
	95.00	.194	.110	.189	.236	.268	.269
LOWER SURFACE	.00		.006	.089	.028	.170	.232
	1.25	.242	.001	.041	.014	.089	.067
	2.50	.184	.005	.080	.003	.086	.118
	5.00	.081	.020	.024	.021	.068	.084
	7.50	.065	.032	.074	.038	.042	.071
	10.00	.032	.047	.078	.037	.043	.039
	15.00	.011	.064	.079	.047	.049	.055
	20.00	.022	.084	.081	.055	.068	.059
	25.00	.043	.102	.099	.069	.086	.071
	30.00	.047	.124	.123	.111	.113	.084
	35.00	.062	.139	.163	.154	.154	.105
	40.00	.087	.159	.188	.216	.200	.153
	45.00	.108	.185	.226	.293	.280	.233
	50.00	.008	.330	.331	.358	.368	.270
	55.00	.244	.339	.347	.358	.361	.244
	60.00	.408					
	65.00	.393					
	70.00	.393		.797	.489	.389	.318
	75.00	.529		.842	.493	.394	.307
	80.00	.508		.761	.490	.394	.306
	85.00	.338		.666	.487	.397	.296
	90.00	.271		.884	.481	.403	.291
	95.00		.240	.368	.368	.378	.243

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAF)

		PERCENT CHORD	PRESSURE COEFFICIENT, $P$ , AT:						
			0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	$M = 1.03 \quad \alpha = 4.0^\circ$								
	.00	-.069	-.392	-.301	-.546	-.253	-.245	-.035	
	1.25	-.098	-.603	-.762	-.838	-.884	-.883	-.906	
	2.50	-.009	-.568	-.732	-.834	-.891	-.848	-.913	
	5.00	-.064	-.276	-.576	-.748	-.791	-.848	-.809	
	7.50	-.087	-.237	-.271	-.634	-.753	-.796	-.623	
	10.00	-.109	-.224	-.261	-.409	-.721	-.771	-.796	
	15.00	-.129	-.223	-.267	-.310	-.570	-.733	-.696	
	20.00	-.159	-.217	-.273	-.327	-.356	-.684	-.701	
	25.00	-.171	-.222	-.279	-.341	-.377	-.567	-.703	
	30.00	-.175	-.226	-.288	-.340	-.392	-.433	-.597	
	35.00	-.180	-.238	-.298	-.359	-.410	-.429	-.470	
	40.00	-.183	-.245	-.319	-.379	-.427	-.453	-.442	
	45.00	-.197	-.243	-.342	-.404	-.455	-.484	-.419	
	50.00	-.218	-.243	-.367	-.432	-.477	-.512	-.448	
	55.00	-.238	-.253	-.378	-.445	-.508	-.549	-.486	
	60.00	-.253	-.253	-.386	-.455	-.523	-.580	-.510	
	65.00	-.265	-.255	-.402	-.454	-.499	-.562	-.528	
	70.00	-.277	-.266	-.474	-.384	-.383	-.362	-.518	
LOWER SURFACE	.00	-.406	-.229	-.382	-.489	-.536	-.553	-.520	
	1.25	-.253	-.259	-.321	-.410	-.509	-.531	-.520	
	2.50	-.271	-.269	-.267	-.334	-.461	-.502	-.542	
	5.00	-.282	-.242	-.243	-.317	-.432	-.451	-.555	
	7.50	-.279	-.091	-.259	-.325	-.388	-.403	-.518	
	1.25	.344	.376	.402	.482	.486	.510	.428	
	2.50	.352	.352	.356	.358	.385	.351	.371	
	5.00	.317	.247	.275	.274	.322	.321	.285	
	7.50	.277	.208	.232	.241	.273	.271	.237	
	10.00	.256	.180	.223	.247	.242	.244	.180	
	15.00	.209	.147	.207	.213	.211	.191	.109	
	20.00	.174	.122	.153	.194	.184	.173	.012	
	25.00	.141	.110	.139	.180	.168	.157	.050	
	30.00	.113	.116	.124	.173	.163	.140	.076	
	35.00	.103	.143	.187	.177	.165	.134	.087	
	40.00	.095	.192	.198	.186	.181	.135	.104	
	45.00	.088	.261	.285	.213	.207	.173	.151	
	50.00	.115	.345	.274	.258	.253	.221	.232	
	55.00	.161	.420	.343	.328	.314	.244	.258	
60.00	.320	.389	.371	.382	.347	.220	.276		
65.00	.512	.302	.369	.364	.342		.278		
70.00	.747						.280		
75.00	.747						.286		
80.00	.442	.745	.449	.389	.373	.322	.291		
85.00	.364	.828	.457	.398	.381	.310	.286		
90.00	.301	.756	.456	.408	.389	.308	.291		
95.00	.237	.646	.455	.417	.395	.307	.287		
GAP		.464	.450	.421	.402	.313	.284		
$M = 1.03 \quad \alpha = 5.0^\circ$									
UPPER SURFACE	.00	-.084	-.255	-.147	-.388	-.094	-.103	-.126	
	1.25	-.052	-.814	-.884	-.946	-.975	-.984	1.000	
	2.50	-.032	-.795	-.874	-.932	-.977	-.930	.997	
	5.00	-.131	-.623	-.804	-.870	-.903	-.937	.894	
	7.50	-.147	-.379	-.721	-.813	-.868	-.899	.896	
	10.00	-.177	-.305	-.676	-.744	-.846	-.879	.801	
	15.00	-.191	-.289	-.485	-.679	-.787	-.846	.813	
	20.00	-.214	-.277	-.315	-.564	-.733	-.795	.815	
	25.00	-.223	-.277	-.328	-.414	-.653	-.733	.741	
	30.00	-.226	-.275	-.335	-.378	-.528	-.722	.660	
	35.00	-.220	-.283	-.346	-.393	-.469	-.719	.676	
	40.00	-.220	-.291	-.364	-.409	-.476	-.706	.689	
	45.00	-.236	-.312	-.384	-.433	-.496	-.666	.700	
	50.00	-.252	-.340	-.419	-.463	-.527	-.620	.715	
	55.00	-.275	-.340	-.426	-.477	-.547	-.600	.719	
	60.00	-.288	-.351	-.437	-.494	-.546	-.527	.654	
	65.00	-.294	-.365	-.437	-.485	-.526	-.527	.637	
	70.00	-.310	-.737	-.452	-.370	-.381	-.400	.620	
	LOWER SURFACE	.00	-.436	-.284	-.446	-.530	-.579	-.541	.604
1.25		-.284	-.298	-.370	-.472	-.559	-.561	.620	
2.50		-.304	-.288	-.299	-.391	-.529	-.536	.630	
5.00		-.313	-.247	-.273	-.359	-.494	-.498	.630	
7.50		-.305	-.067	-.285	-.354	-.428	-.449	.564	
1.25		.386	.503	.505	.566	.532	.545	.465	
2.50		.439	.435	.441	.440	.449	.410	.416	
5.00		.431	.362	.373	.361	.385	.378	.330	
7.50		.399	.316	.343	.315	.335	.327	.279	
10.00		.372	.287	.309	.316	.300	.295	.223	
15.00		.318	.245	.280	.273	.262	.236	.159	
20.00		.276	.217	.257	.251	.231	.218	.048	
25.00		.237	.199	.243	.238	.212	.196	.016	
30.00		.205	.195	.230	.219	.200	.175	.050	
35.00		.191	.208	.230	.216	.197	.163	.070	
40.00		.177	.243	.235	.219	.207	.158	.079	
45.00		.162	.298	.254	.241	.228	.168	.153	
50.00		.183	.368	.295	.280	.268	.187	.231	
55.00		.211	.440	.361	.337	.327	.257	.257	
60.00	.352	.418	.394	.401	.389	.235	.279		
65.00	.549	.341	.393	.385			.289		
70.00	.816						.293		
75.00	.921	.722	.441	.376	.367	.325	.303		
80.00	.403	.835	.447	.388	.377	.313	.312		
85.00	.328	.759	.447	.399	.385	.313	.311		
90.00	.256	.639	.446	.408	.390	.320	.311		
95.00	.194	.407	.433	.408	.399	.333	.312		
GAP		.229	.401	.389	.364	.216			

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	M = 1.03    α = 7.9°							
	.00	.110	.097	.005	.240	.075	.053	.289
	1.25	.005	.952	.991	1.045	1.062	1.074	1.077
	2.50	.128	.945	.980	1.032	1.064	1.000	1.072
	5.00	.208	.865	.946	.981	.998	1.028	.966
	7.50	.228	.677	.900	.939	.969	.994	1.003
	10.00	.258	.490	.868	.902	.953	.974	.985
	15.00	.267	.400	.790	.838	.910	.937	.891
	20.00	.264	.366	.618	.798	.882	.897	.894
	25.00	.286	.355	.484	.788	.880	.906	.895
	30.00	.284	.344	.401	.774	.835	.873	.850
	35.00	.273	.345	.393	.769	.799	.866	.792
	40.00	.269	.347	.402	.756	.779	.861	.810
	45.00	.283	.365	.425	.720	.761	.851	.829
	50.00	.297	.385	.450	.677	.699	.854	.836
	55.00	.318	.386	.439	.616	.628	.733	.834
	60.00	.332	.396	.468	.527	.529	.641	.786
65.00	.337	.408	.476	.508	.537	.618	.745	
70.00	.354	.719	.444	.469	.511	.609	.749	
75.00	.476	.350	.401	.515	.597	.627	.728	
80.00	.328	.152	.316	.431	.585	.598	.732	
85.00	.340	.118	.298	.395	.536	.549	.733	
90.00	.353	.267	.298	.374	.480	.505	.681	
95.00	.334	.069	.308					
LOWER SURFACE	1.25	.432	.594	.572	.564	.572	.577	.487
	2.50	.523	.533	.519	.497	.500	.448	.459
	5.00	.548	.459	.450	.421	.450	.426	.374
	7.50	.517	.412	.419	.383	.392	.377	.313
	10.00	.488	.376	.381	.372	.357	.345	.266
	15.00	.423	.332	.345	.326	.308	.283	.197
	20.00	.371	.296	.313	.299	.275	.259	.089
	25.00	.325	.274	.294	.276	.252	.230	.017
	30.00	.289	.262	.275	.258	.238	.210	.048
	35.00	.269	.267	.269	.248	.229	.193	.065
	40.00	.251	.289	.270	.247	.232	.185	.096
	45.00	.231	.330	.285	.263	.248	.199	.150
	50.00	.245	.390	.317	.295	.282	.239	.234
	55.00	.255	.458	.379	.349	.337	.270	.261
	60.00	.366	.447	.415	.418	.376	.251	.289
	65.00	.585	.382	.415	.403	.380		.304
	70.00	.659						.317
75.00	.913	.698	.440	.373	.398	.375	.330	
80.00	.400	.848	.446	.391	.405	.355	.348	
85.00	.297	.763	.442	.403	.418	.368	.355	
90.00	.194	.627	.443	.412	.422	.391	.365	
95.00	.072	.301	.415	.405	.422	.414		
GAP		.332	.424	.407	.383	.226		





Chordwise locations of wing orifices at each station are given with the pressure coefficient data in Tables I-IV.

	Spoiler-orifice locations, $z/h$				
	$y/b/2 = 0.25$	$y/b/2 = 0.40$	$y/b/2 = 0.55$	$y/b/2 = 0.70$	$y/b/2 = 0.85$
Front	0.201	0.207	0.177	0.188	0.159
Front	.455	.448	.422	.435	.405
Front	.704	.720	.668	.687	.643
Front	.917	.898	.866	.880	.835
Back	.060	.035	.030	.091	.178
Back	.448	.445	.428	.413	.463
Back	.865	.841	.808	.810	.801

Typical section showing details in vicinity of spoiler

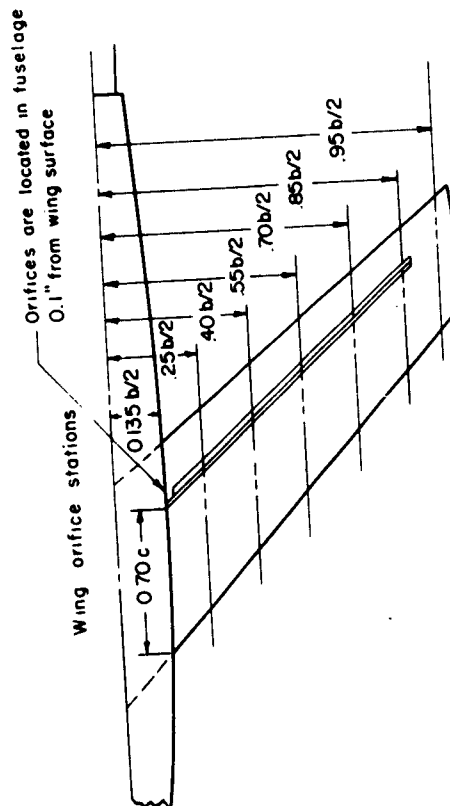
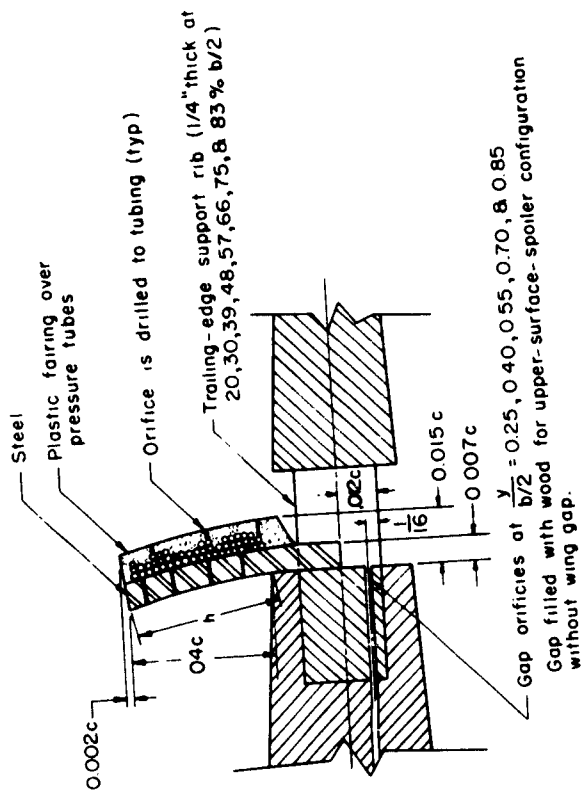


Figure 2.- Pressure-orifice locations and details of spoiler and wing gap.

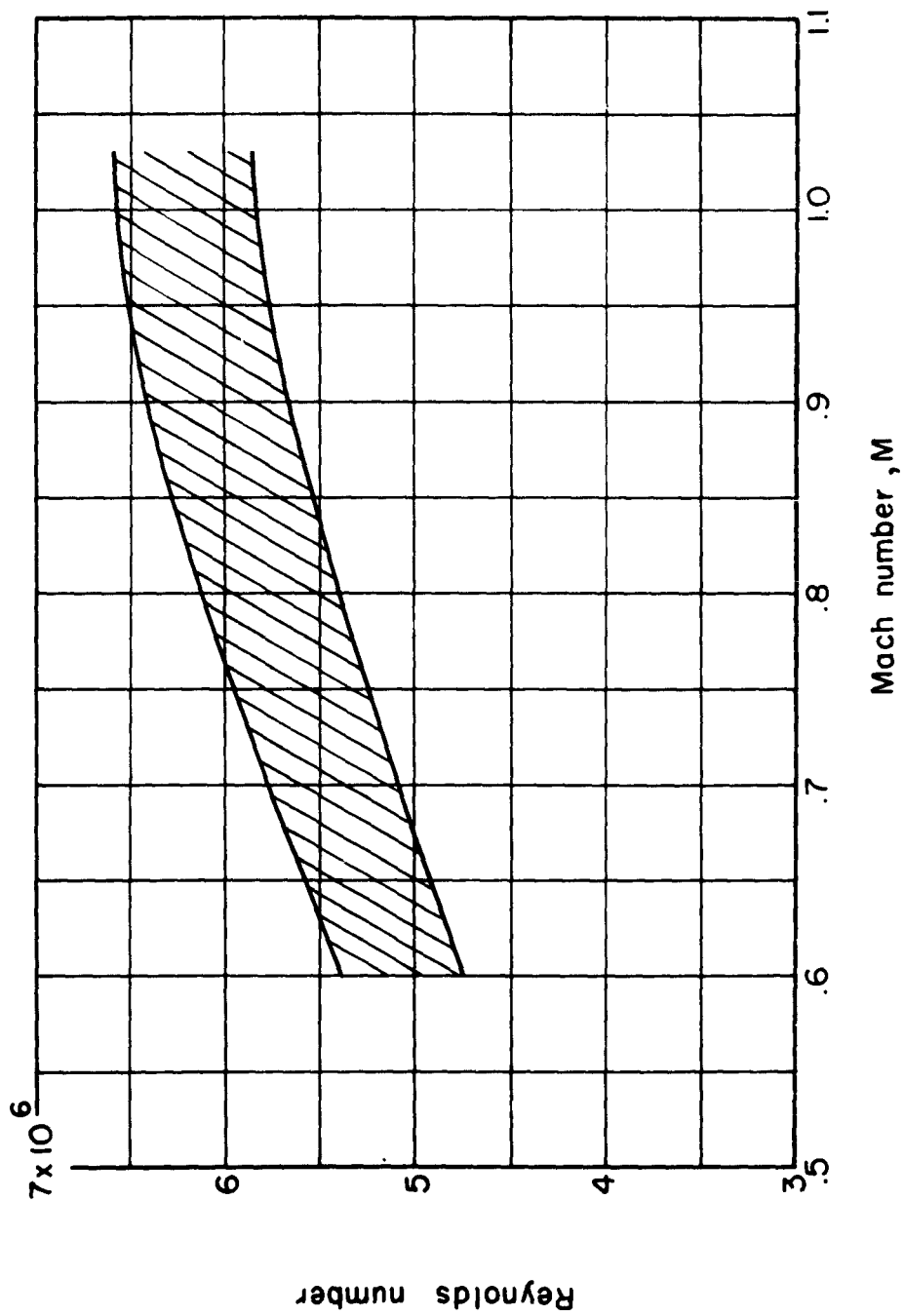


Figure 3.- Variation of Reynolds number based on mean aerodynamic chord with Mach number.

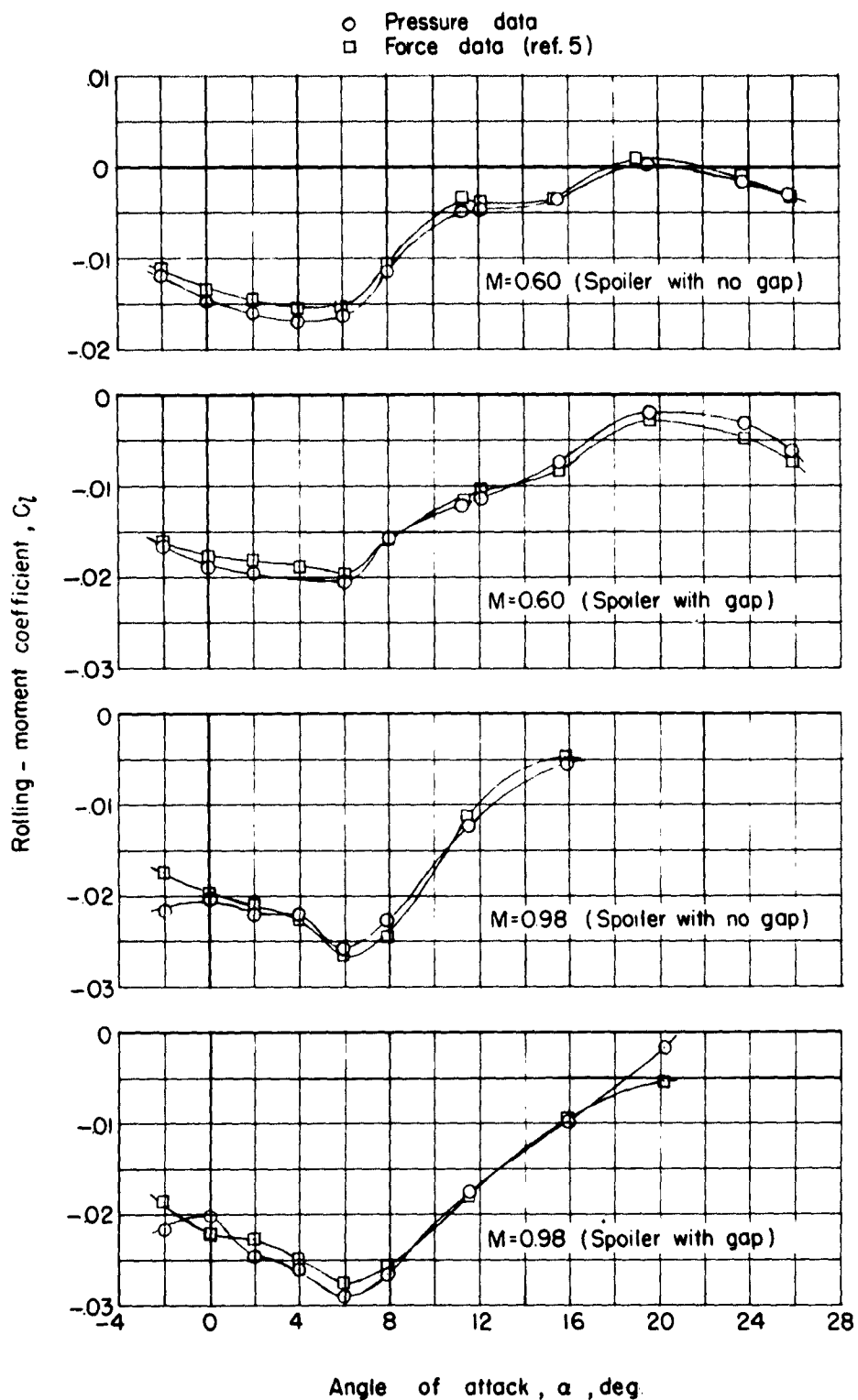


Figure 4.- Comparison of rolling-moment characteristics as obtained from pressure data and from force data for the model with upper-surface spoilers.

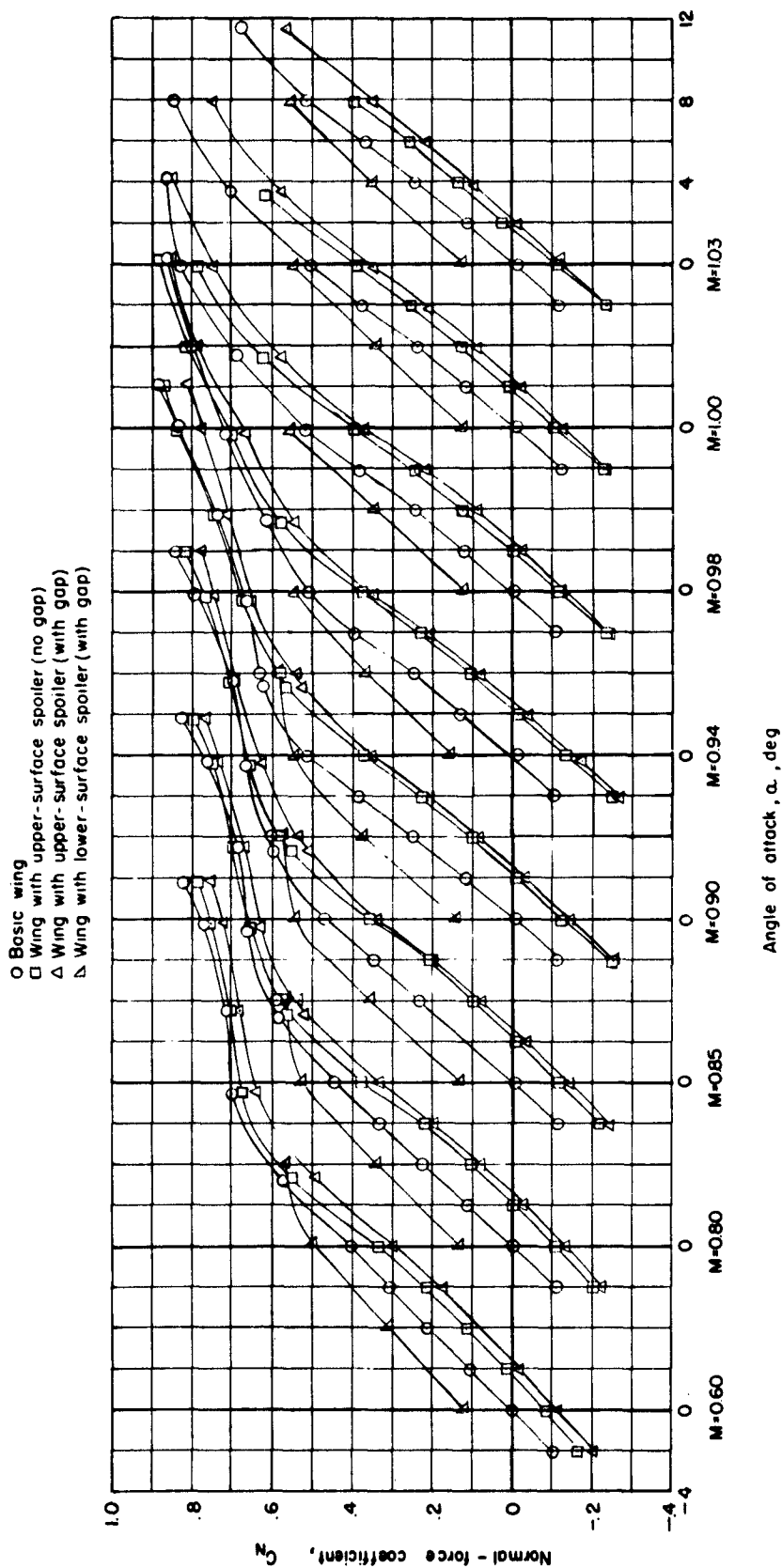


Figure 5.- Wing normal-force characteristics for the basic wing and various spoiler configurations.  $M = 0.60$  to  $M = 1.03$ .

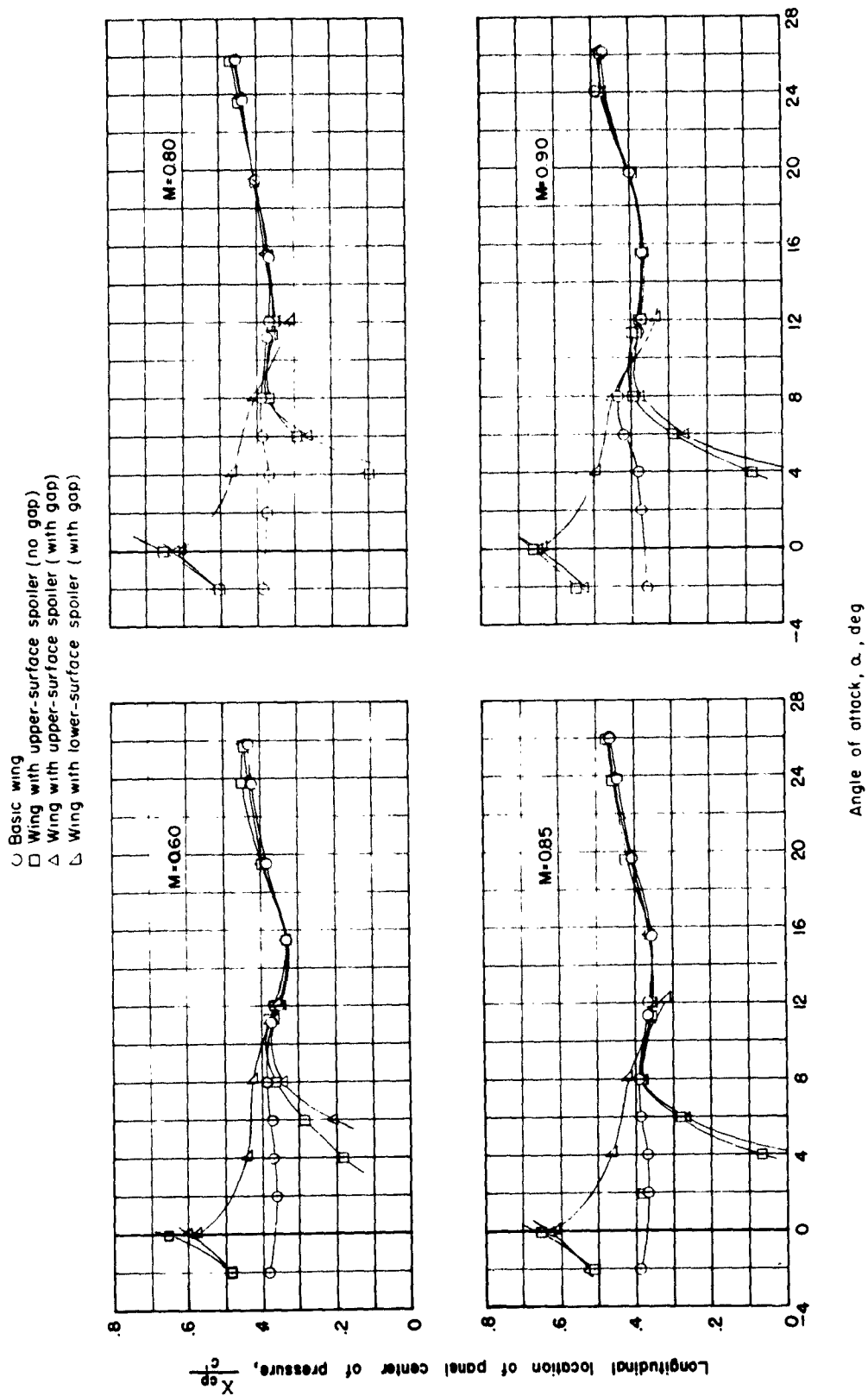
(a)  $M = 0.60, 0.80, 0.85, 0.90$ .

Figure 6.- Longitudinal position of wing center of pressure for the basic wing and various spoiler configurations.

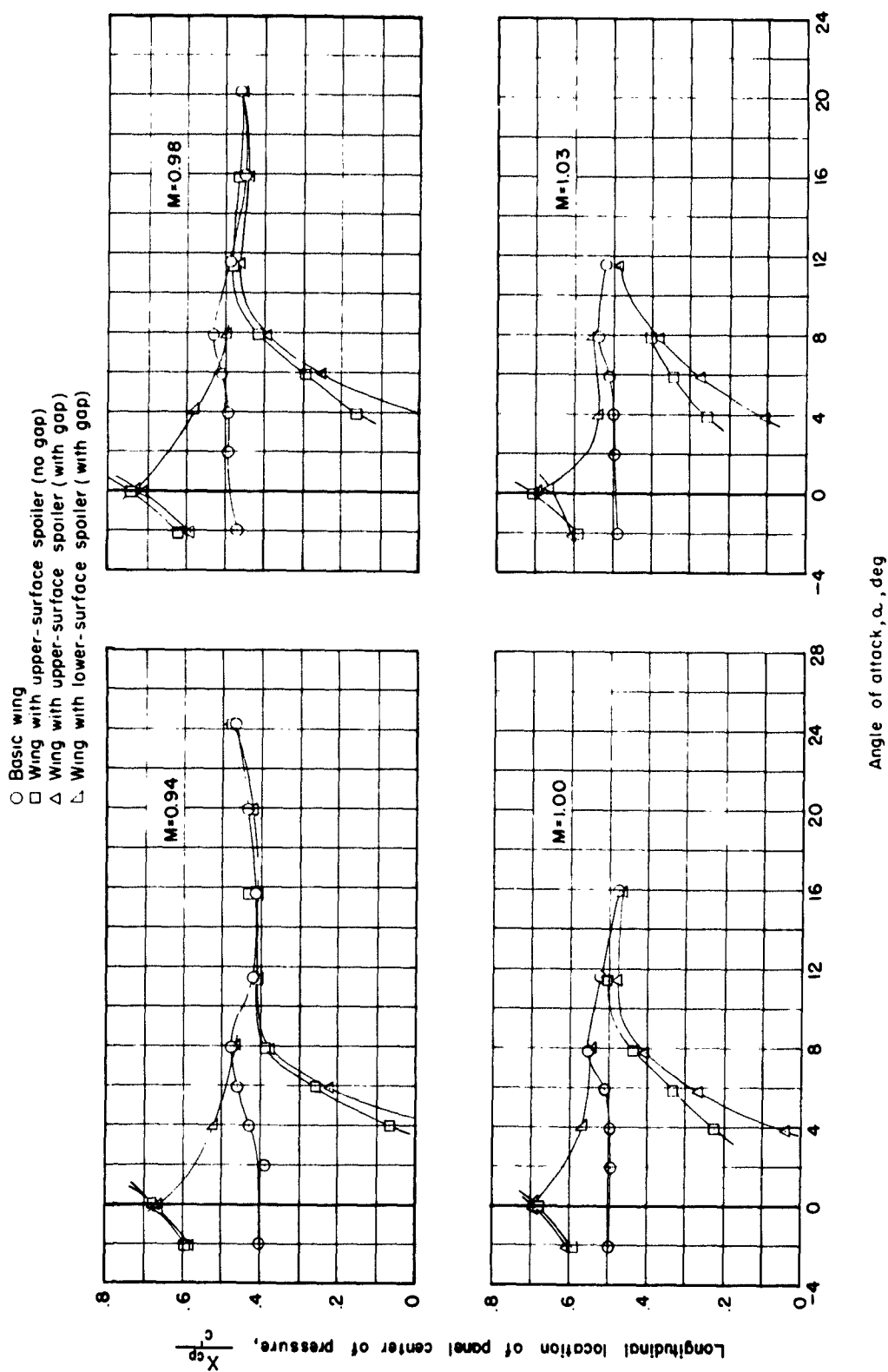
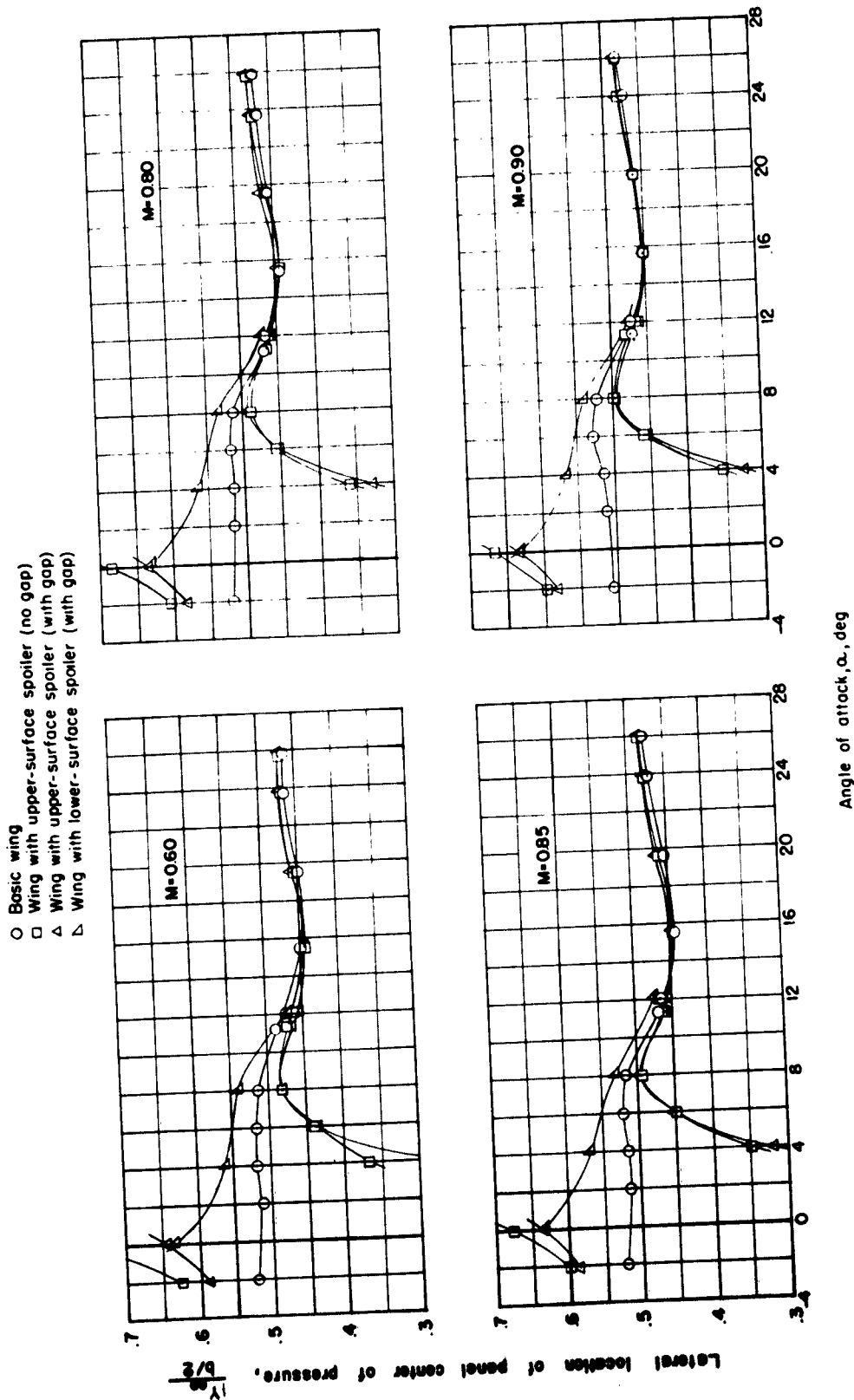
(b)  $M = 0.94, 0.98, 1.00, 1.03$ .

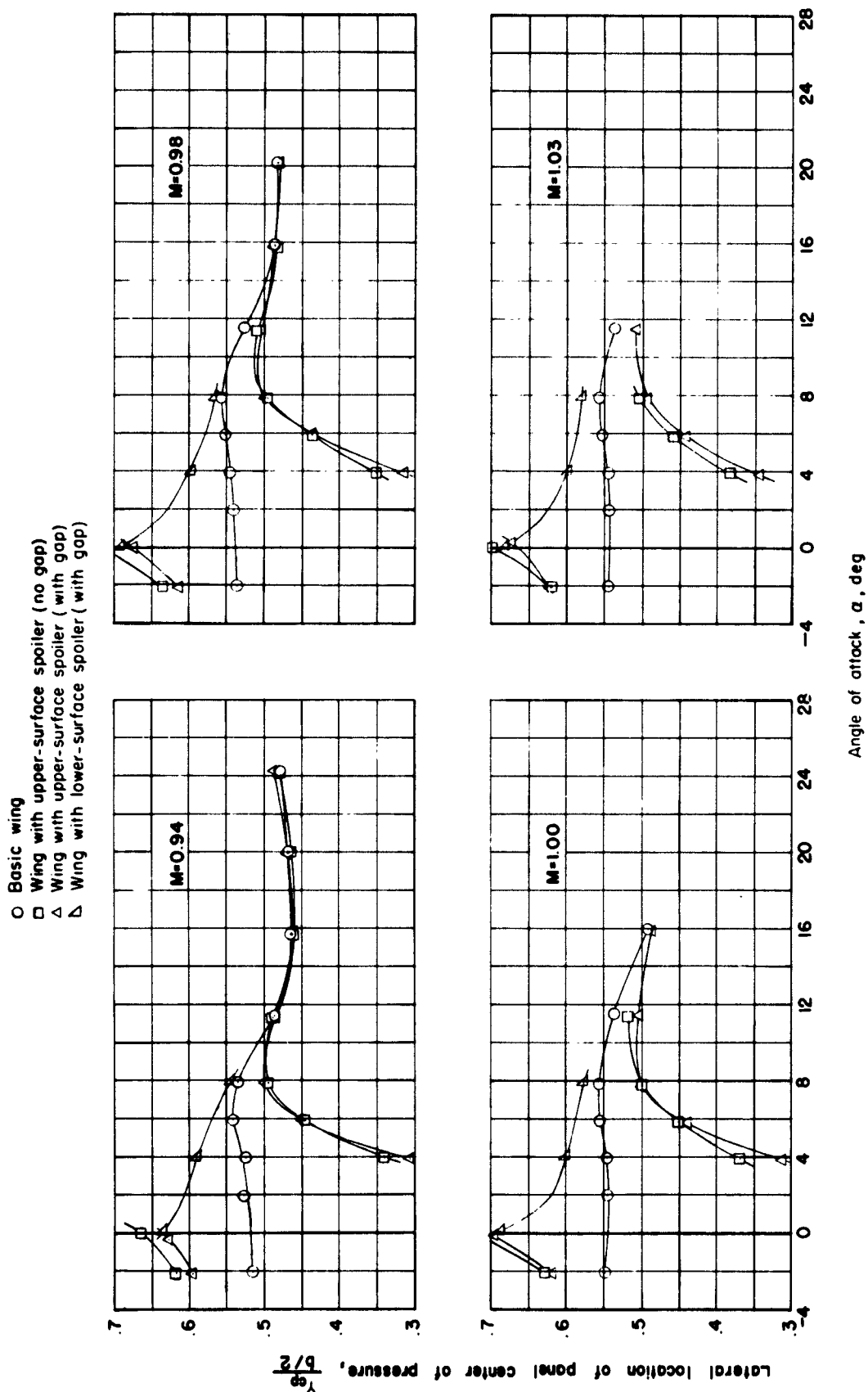
Figure 6.- Concluded.



(a)  $M = 0.60, 0.80, 0.85, 0.90$ .

Figure 7.- Lateral position of wing center of pressure for the basic and various spoiler configurations.





(b)  $M = 0.94, 0.98, 1.00, 1.03$ .

Figure 7.- Concluded.

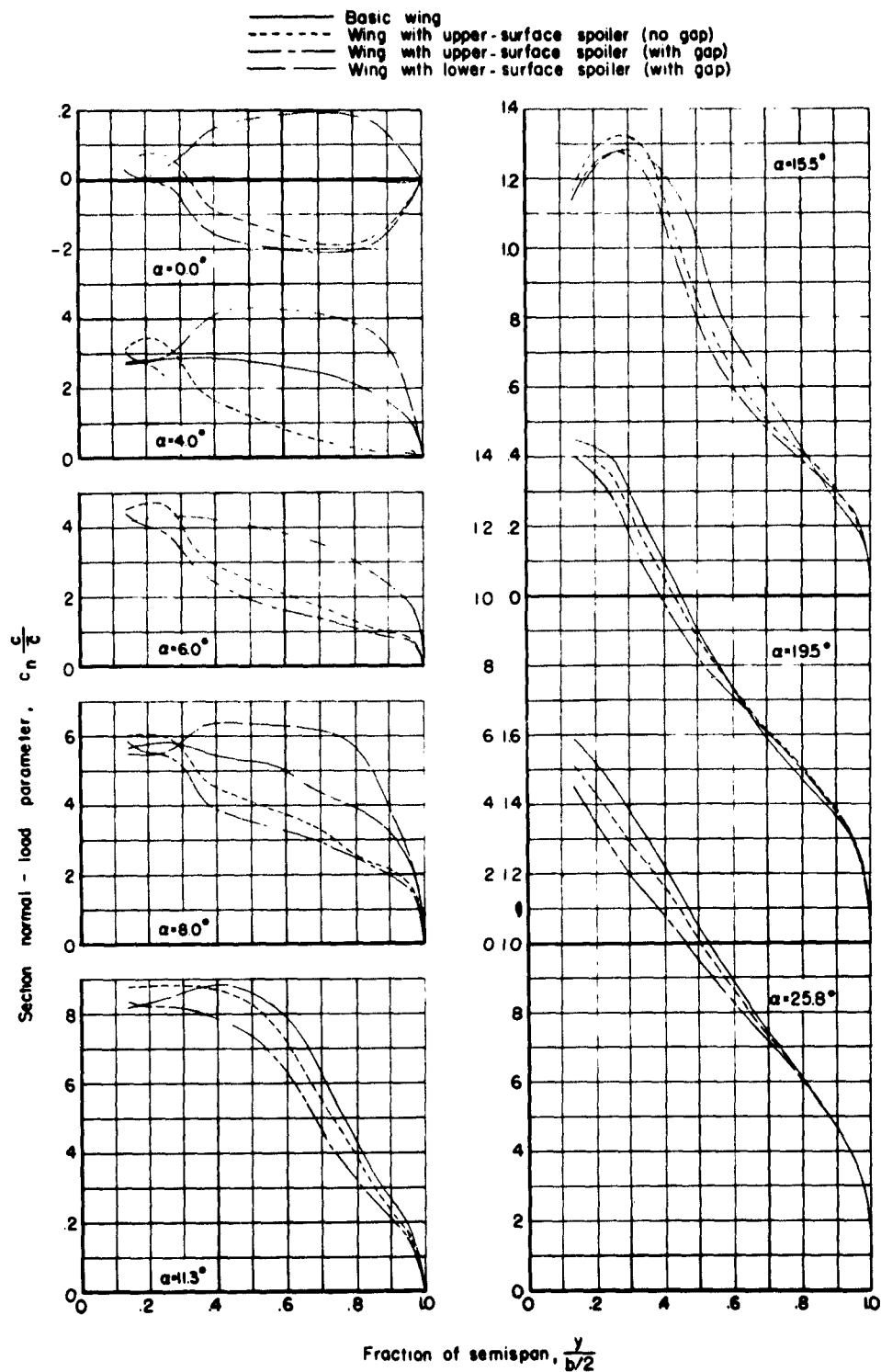
(a)  $M = 0.60$ .

Figure 8.- Wing semispan load distributions for the basic wing and various spoiler configurations.

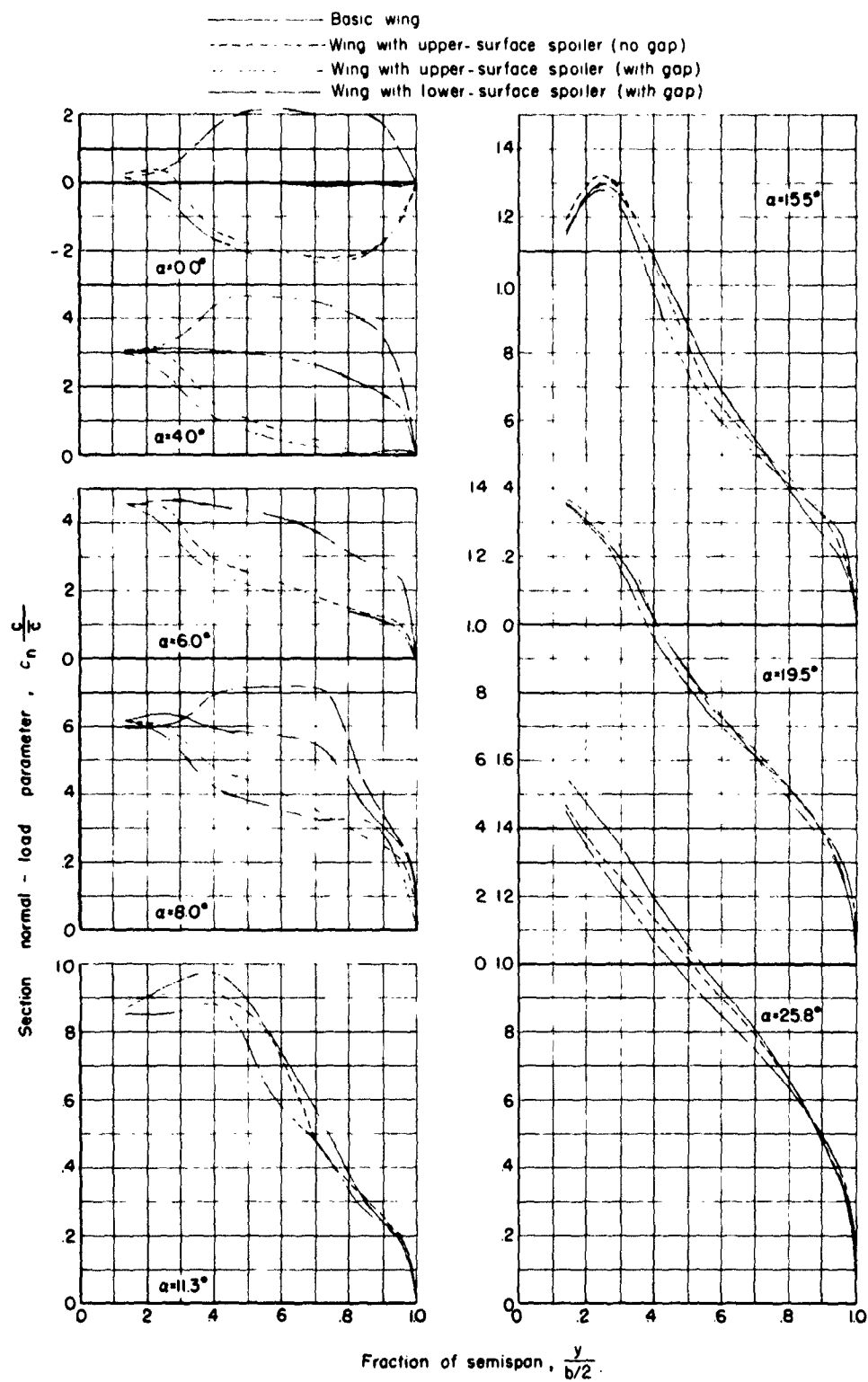
(b)  $M = 0.80$ .

Figure 8.- Continued.

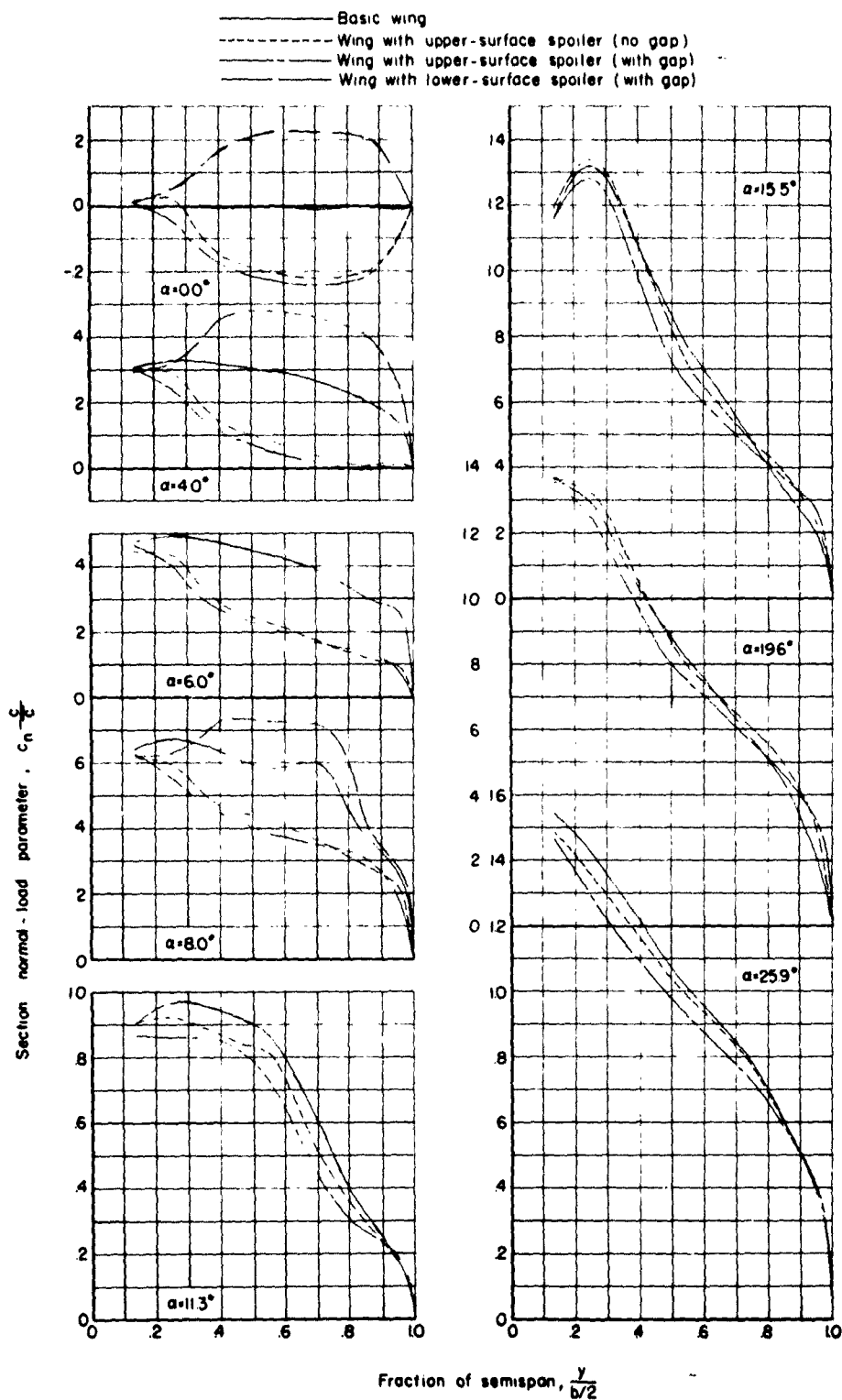
(c)  $M_\infty = 0.85$ .

Figure 8.- Continued.

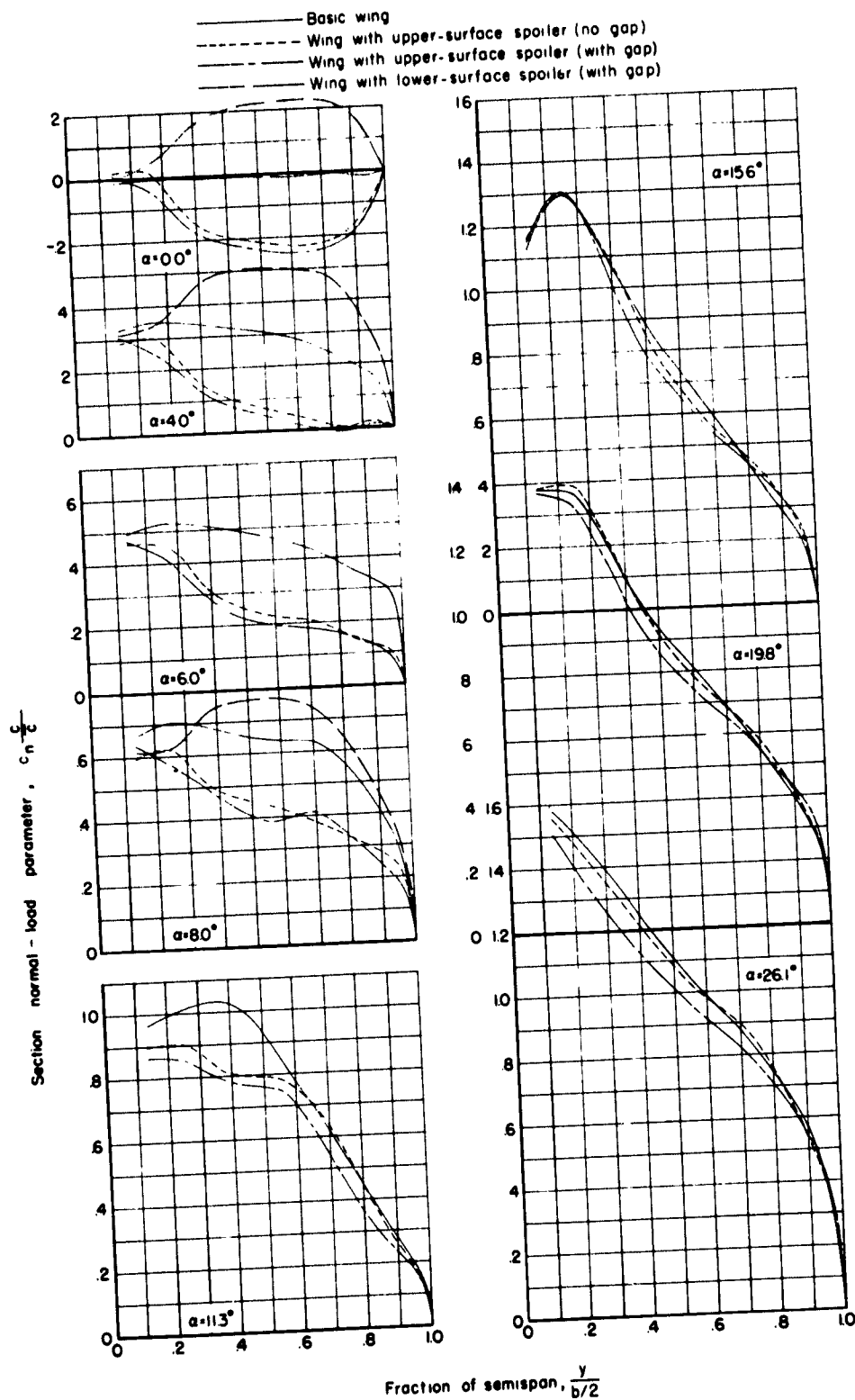
(d)  $M = 0.90$ .

Figure 8.- Continued.

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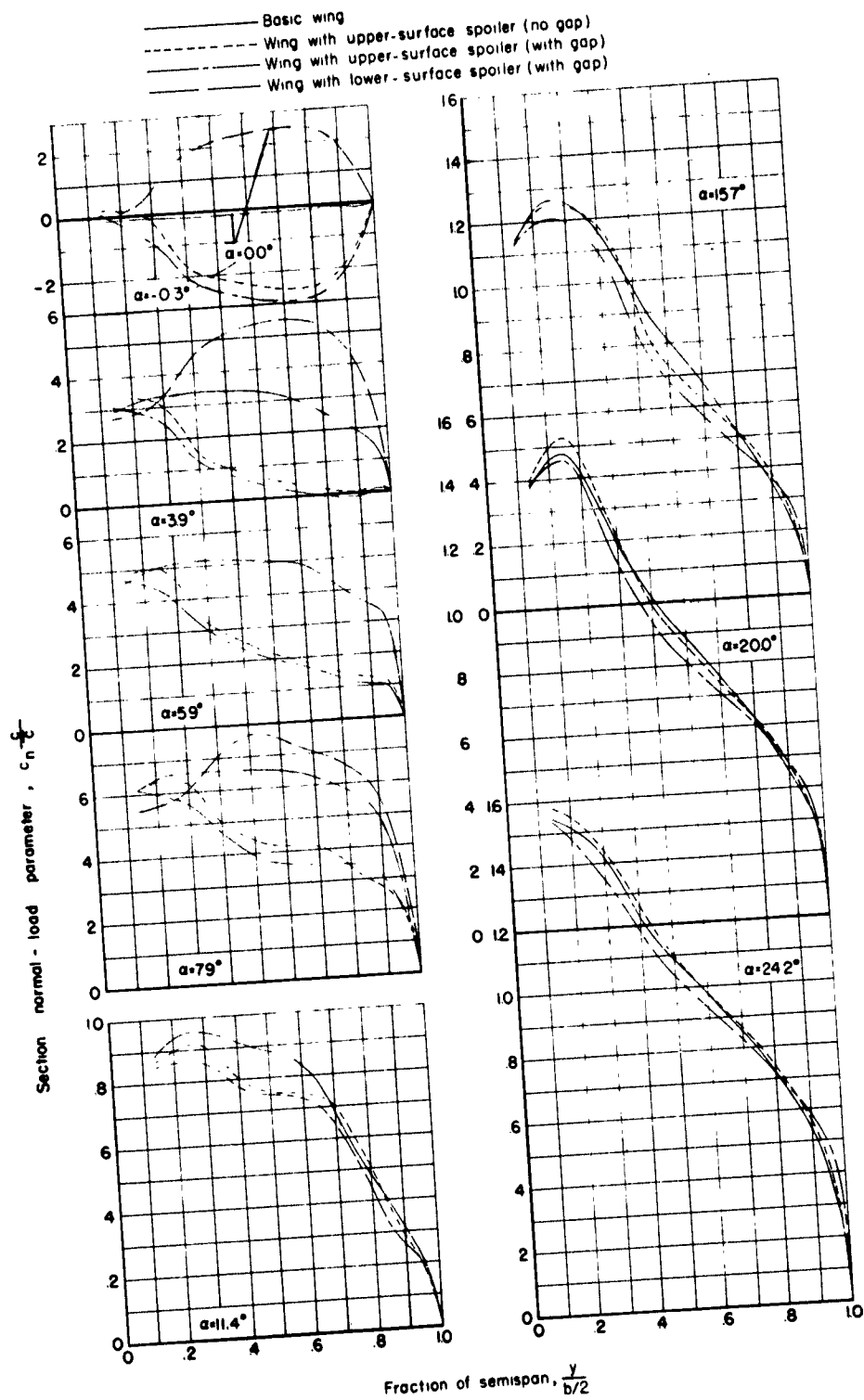
(e)  $M = 0.94$ .

Figure 8.- Continued.

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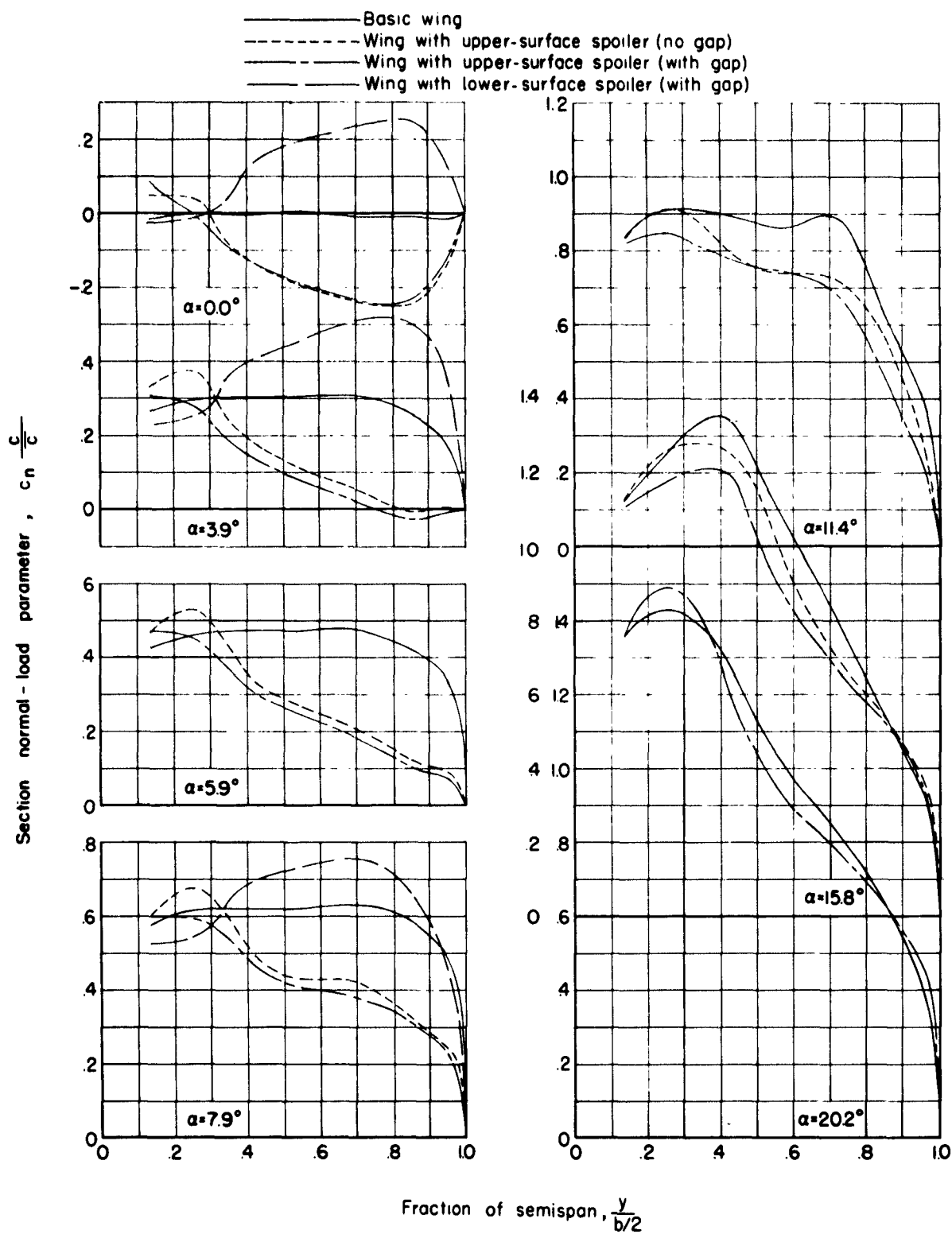
(f)  $M = 0.98$ .

Figure 8.- Continued.

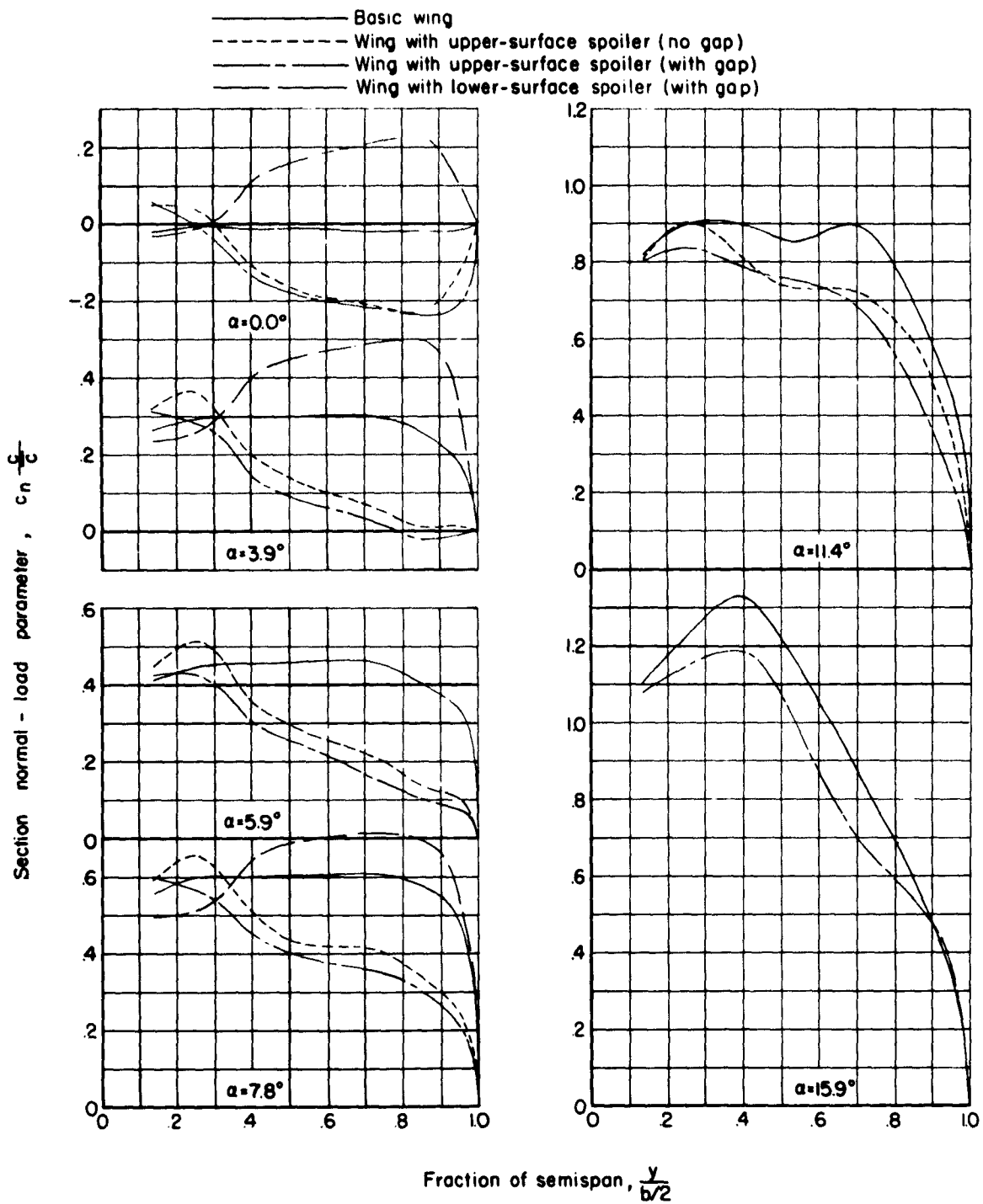
(g)  $M = 1.00$ .(g)  $M = 1.00$ .

Figure 8.- Continued.



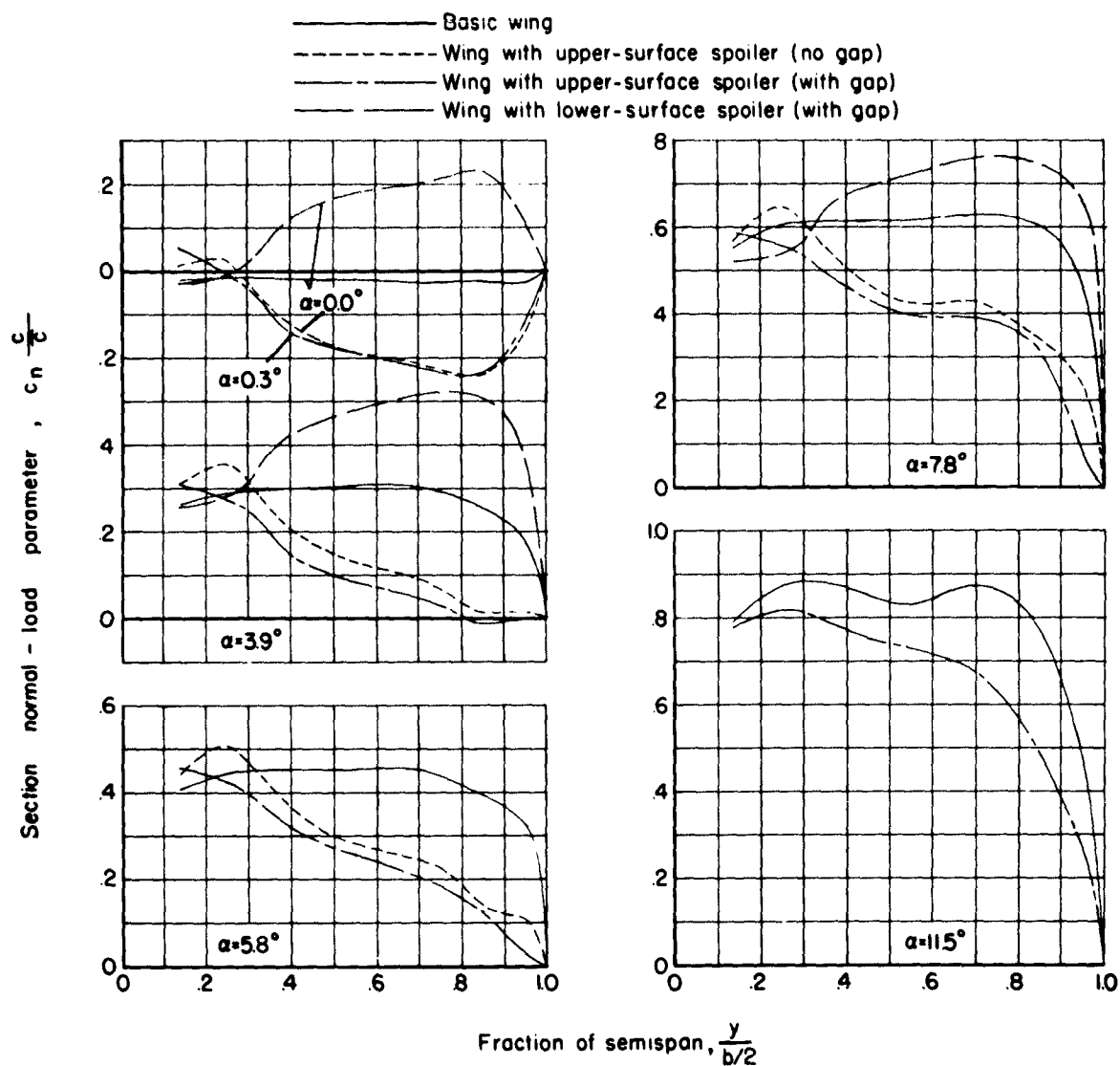
(h)  $M = 1.03$ .

Figure 8.- Concluded.

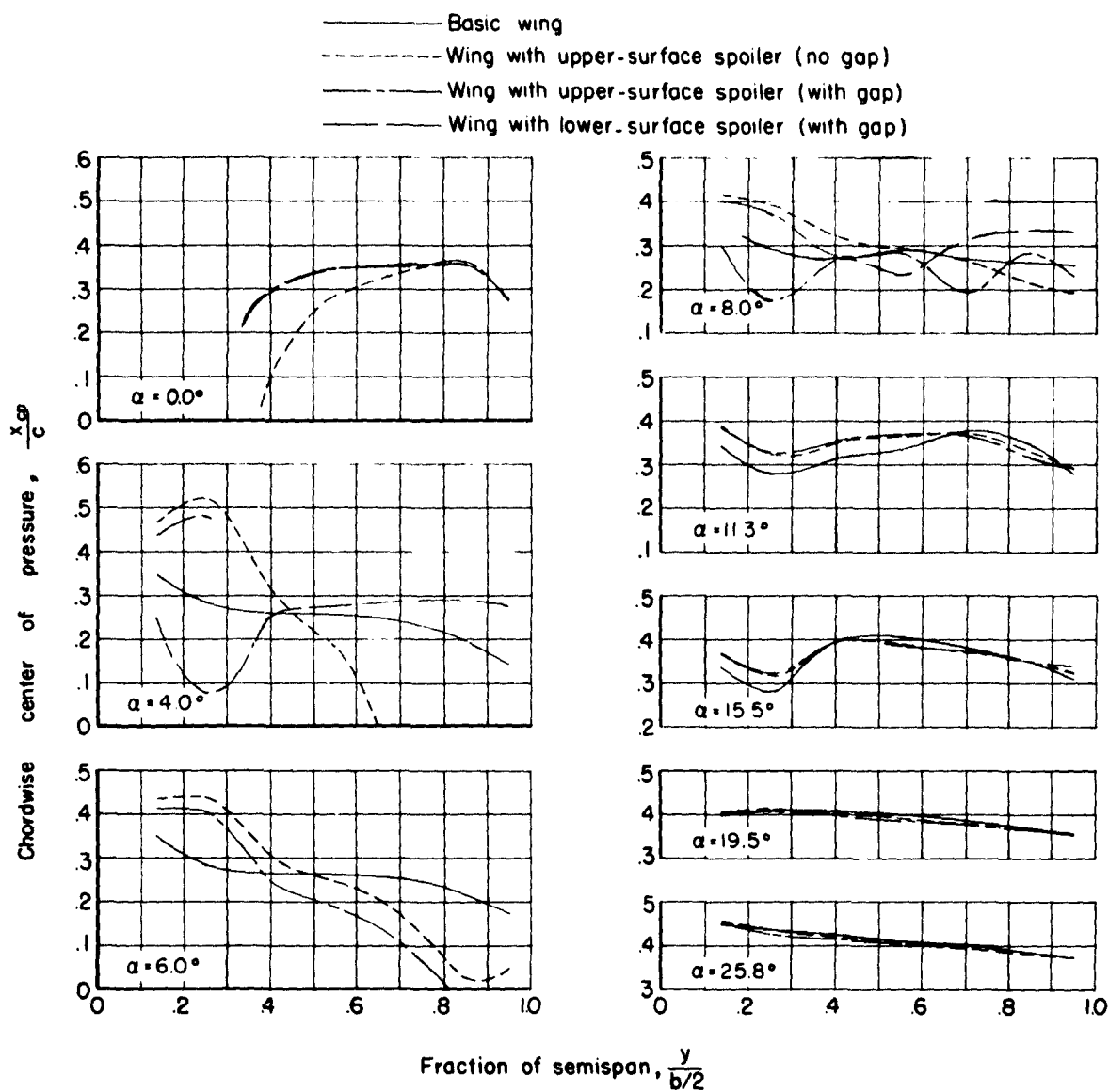
(a)  $M = 0.60$ .

Figure 9.- Wing-section center of pressure across the semispan for the basic wing and various spoiler configurations.

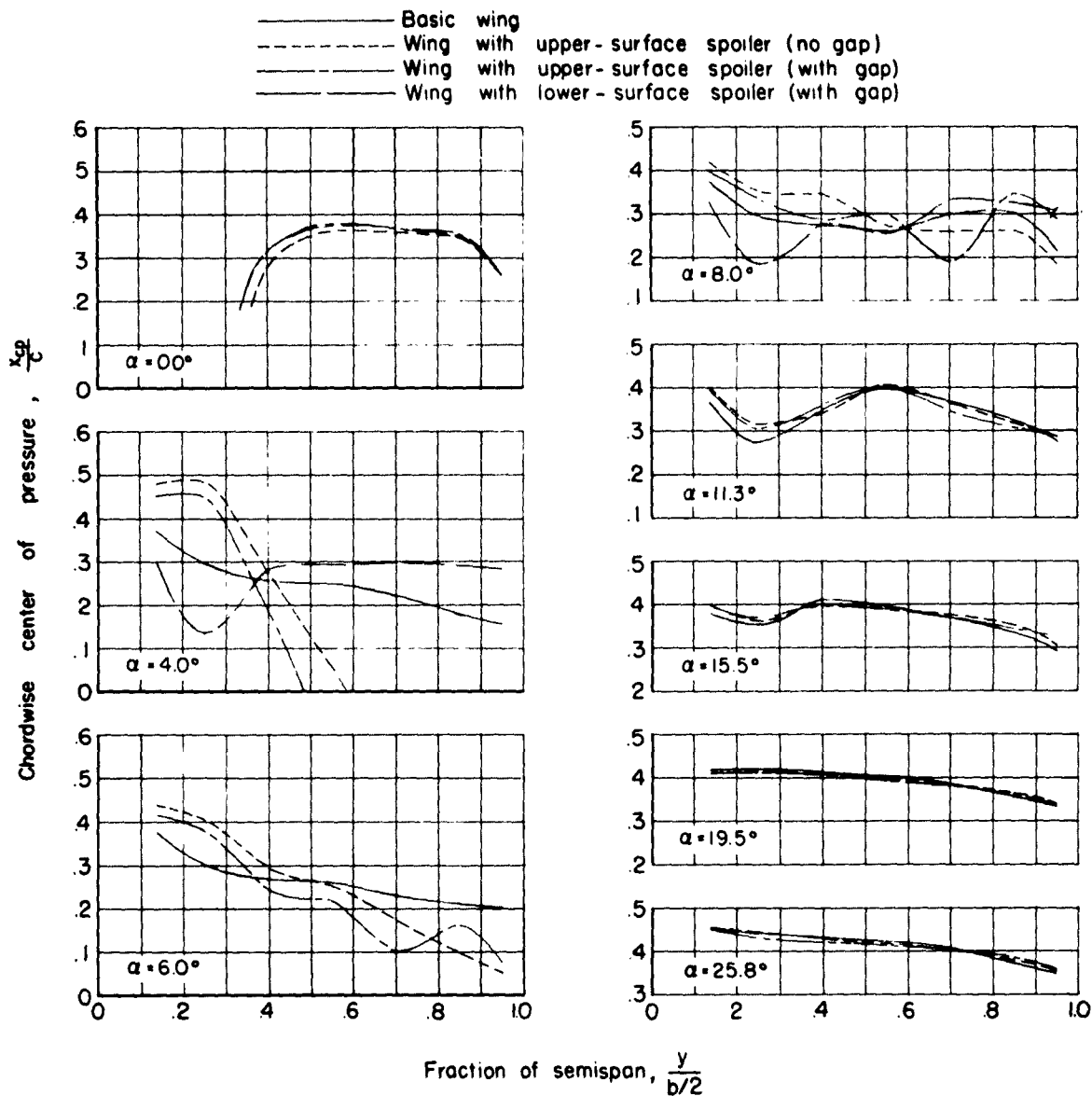
(b)  $M = 0.80$ .

Figure 9.- Continued.

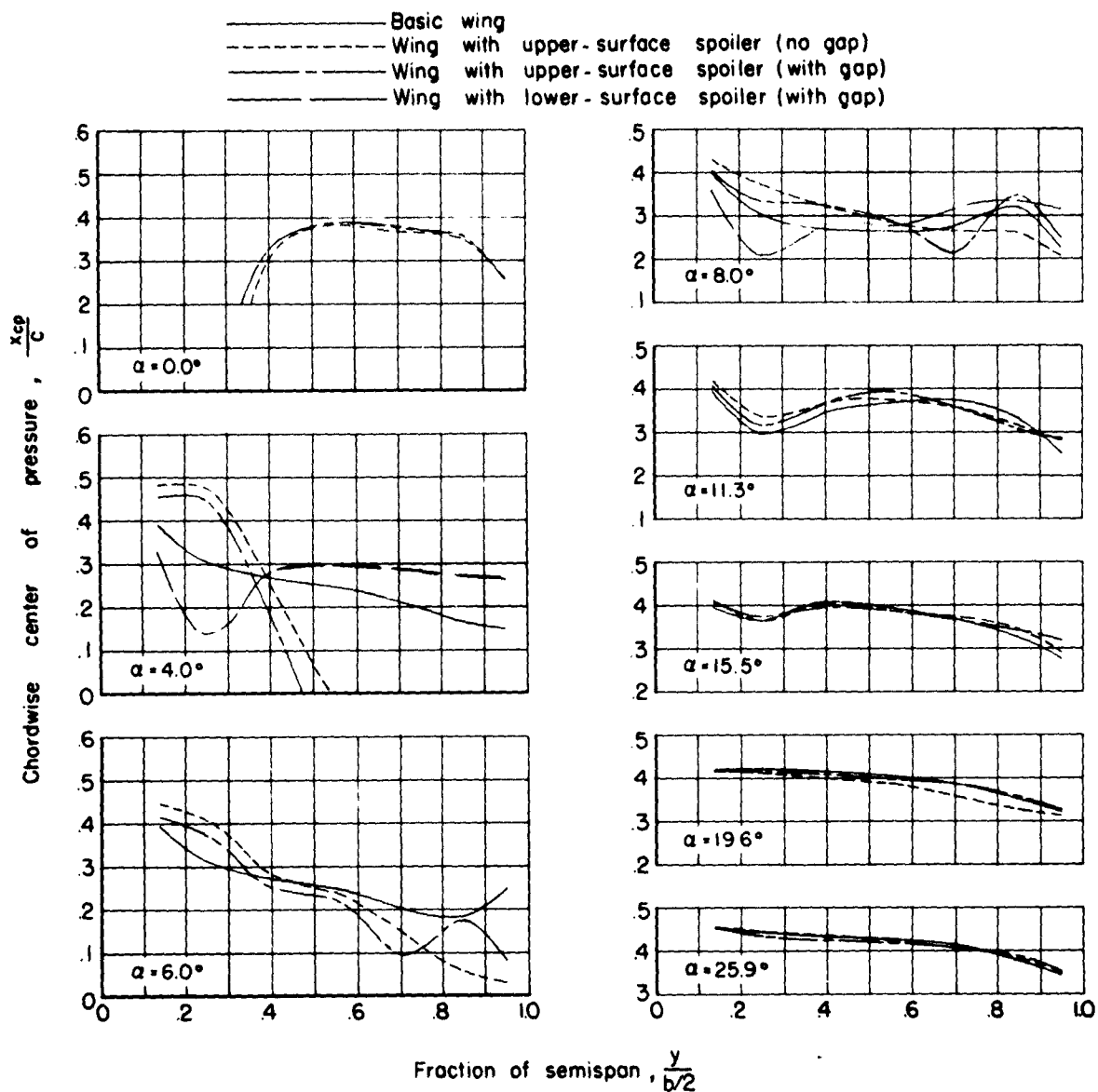
(c)  $M = 0.85$ .

Figure 9.- Continued.

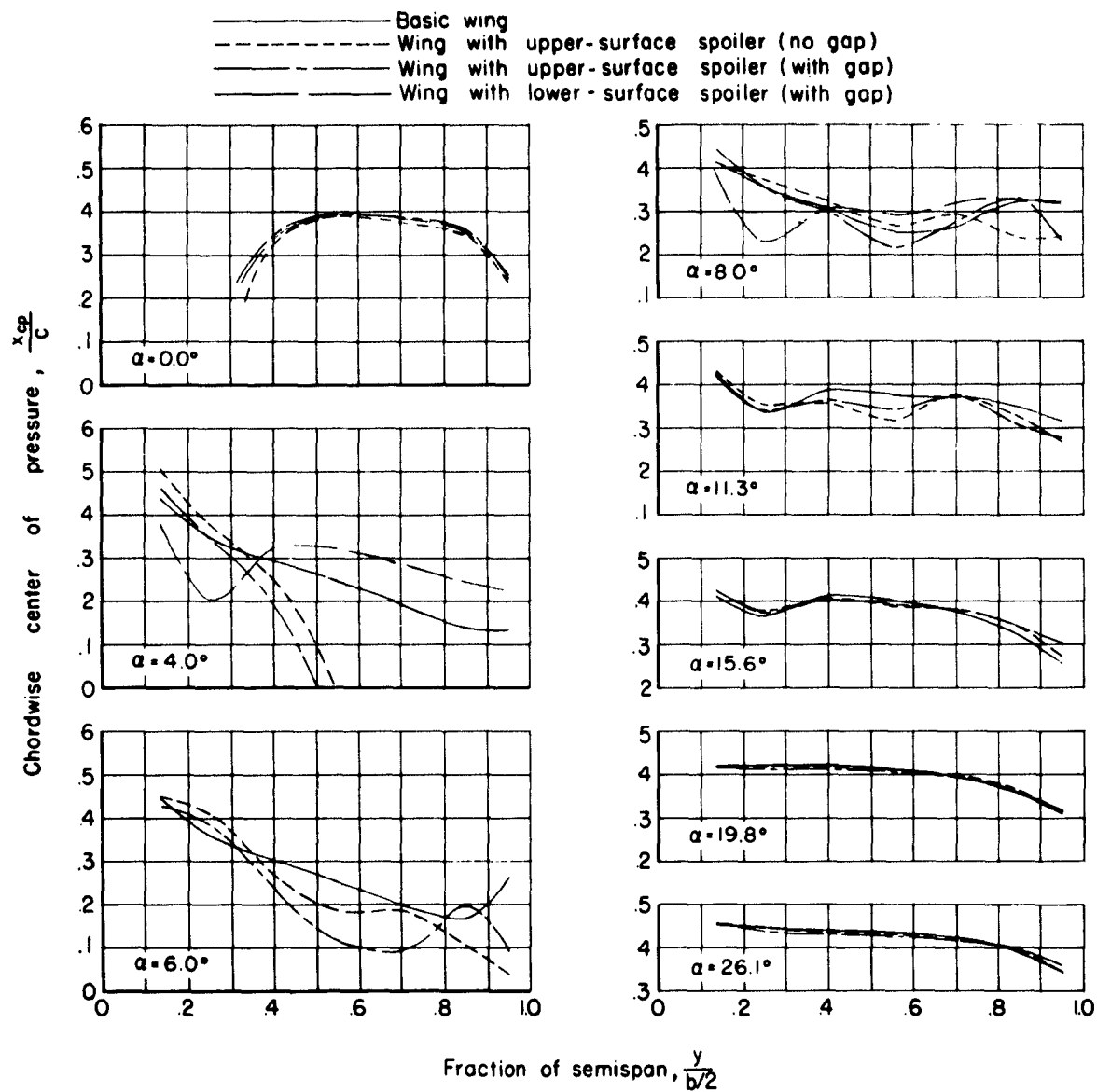
(d)  $M = 0.90$ .

Figure 9.- Continued.

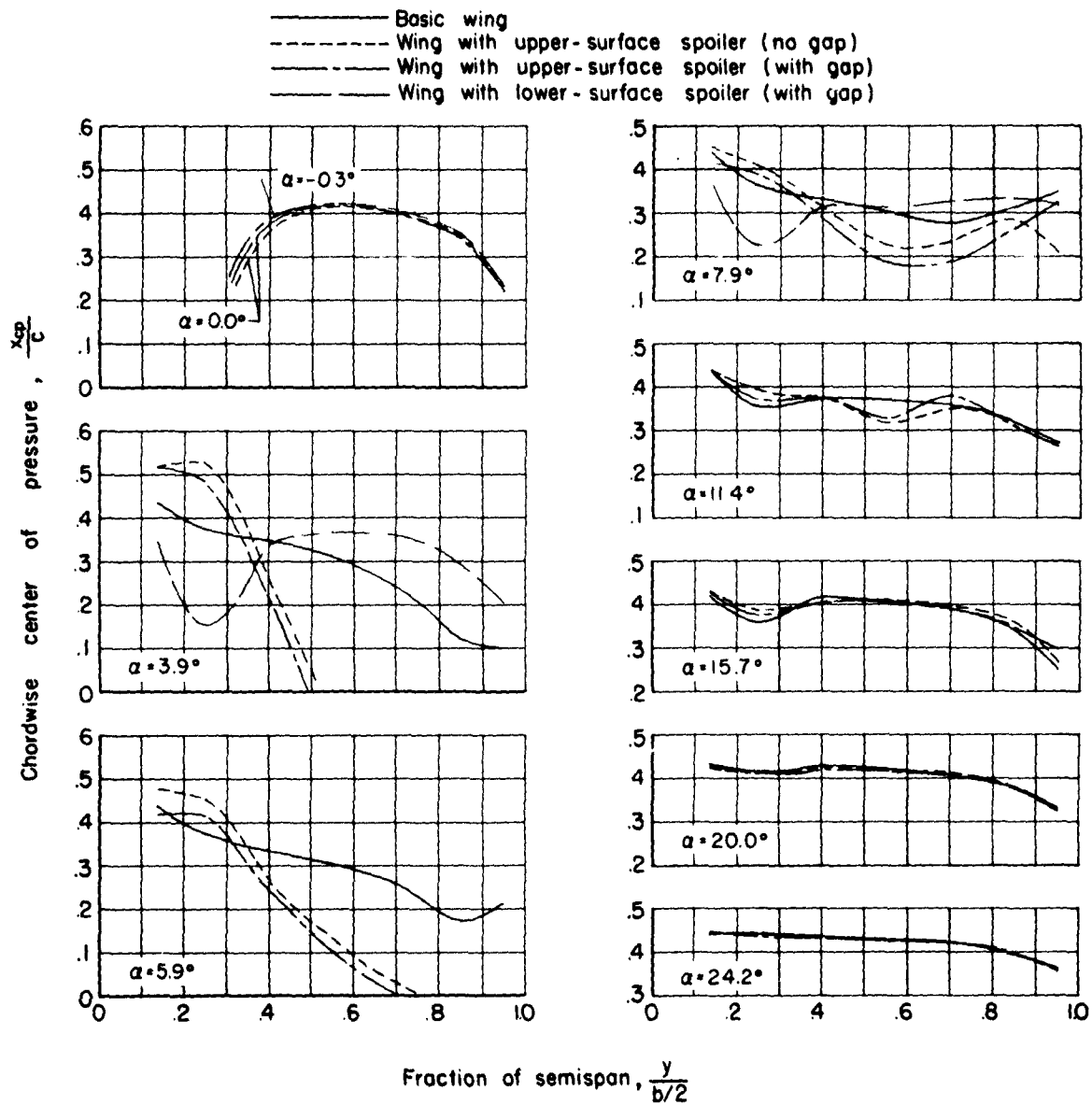
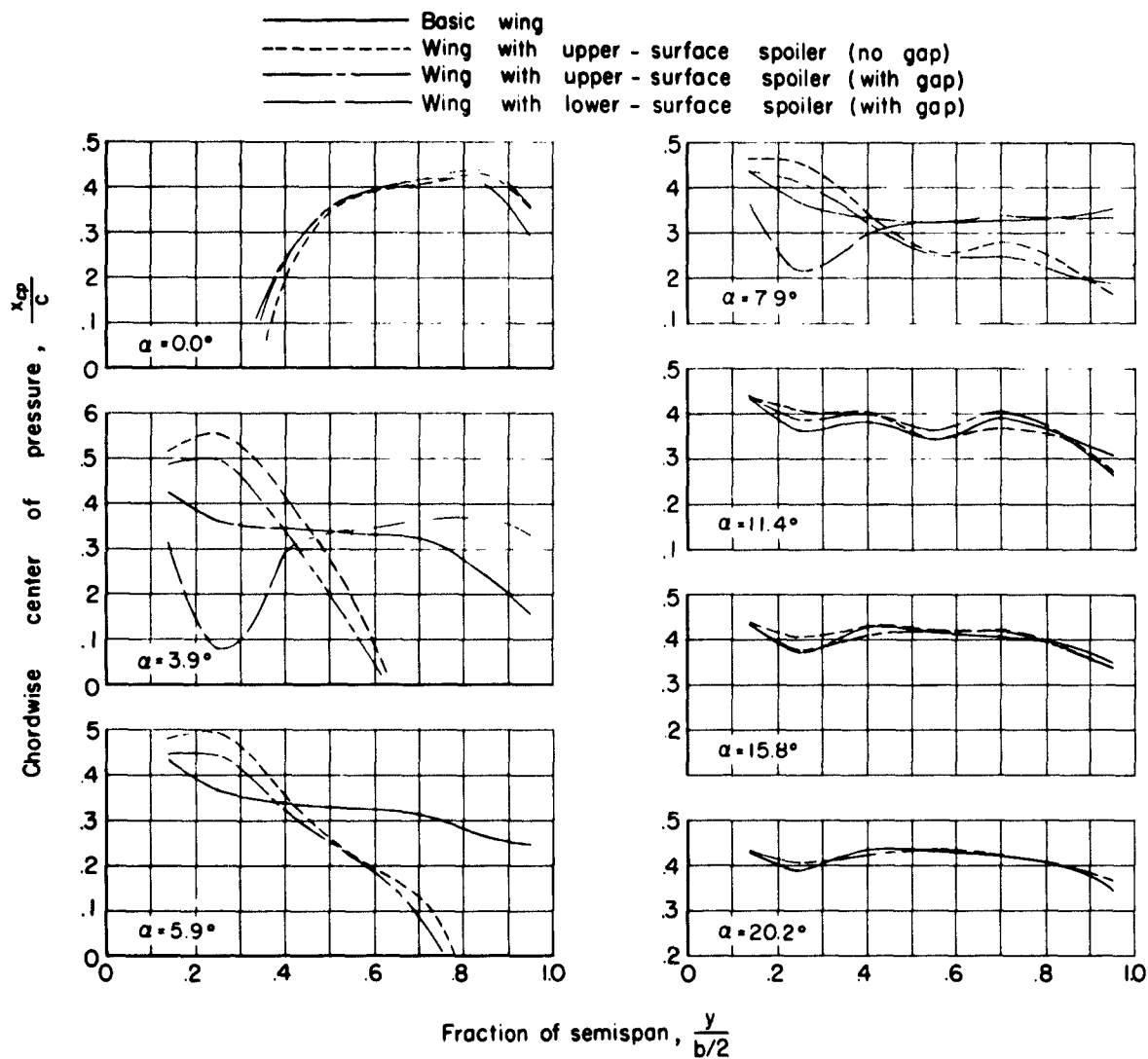
(e)  $M = 0.94$ .

Figure 9.- Continued.



(f)  $M = 0.98$ .

Figure 9.- Continued.

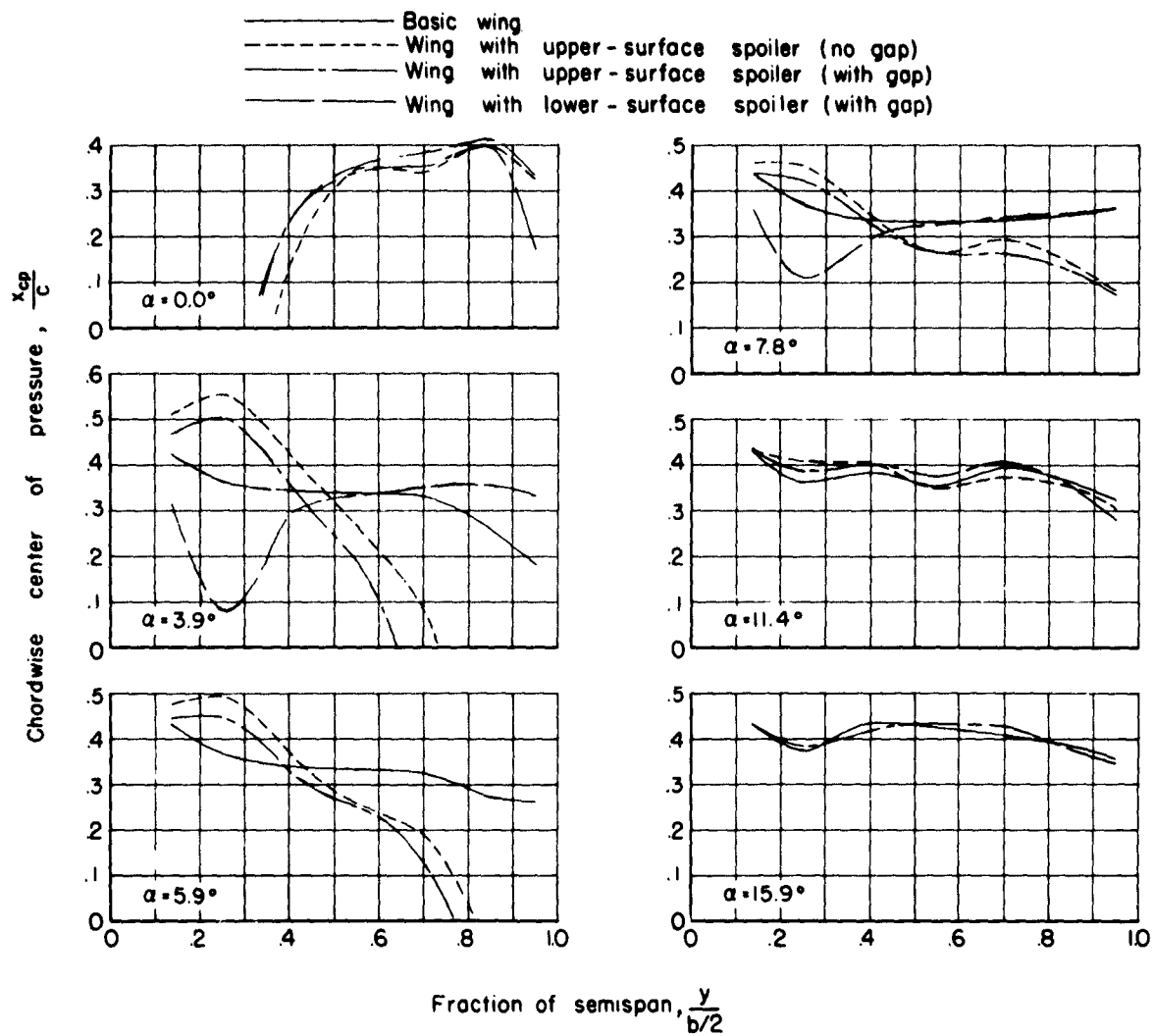
(g)  $M = 1.00$ .

Figure 9.- Continued.



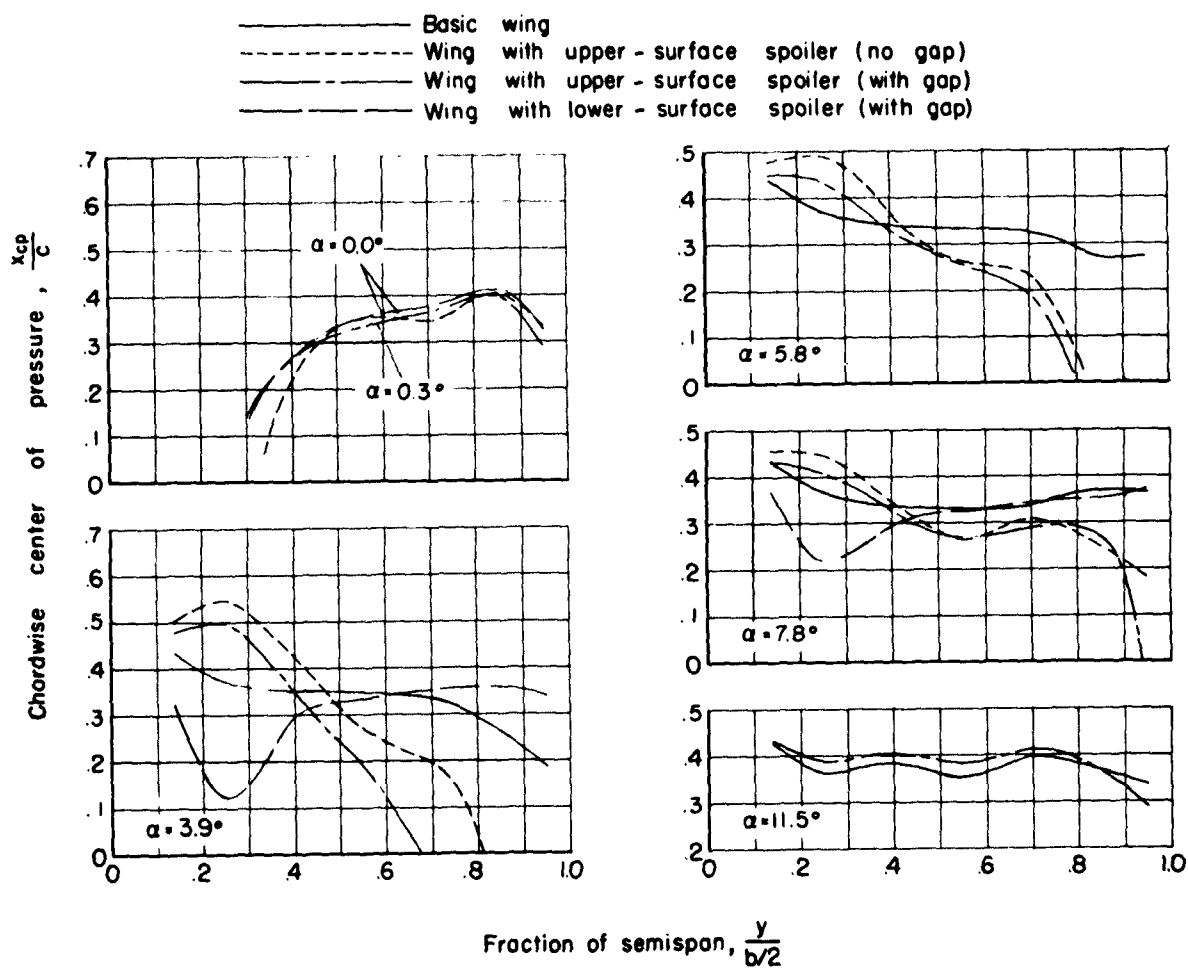
(h)  $M = 1.03$ .

Figure 9.- Concluded.

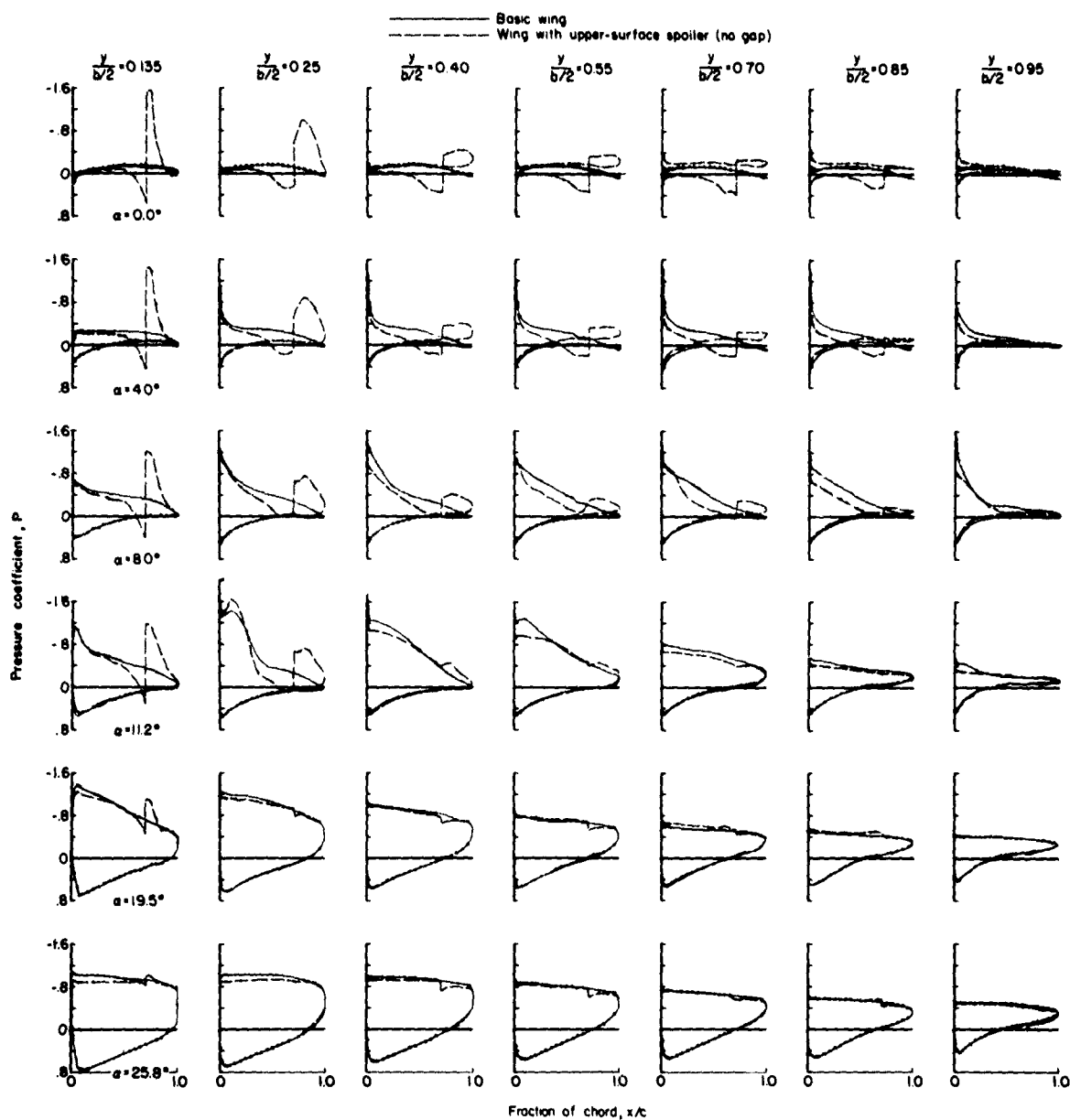
(a)  $M = 0.60$ .

Figure 10.- Chordwise pressure distributions on the wing; basic wing compared with the upper-surface spoiler (no gap) configuration.

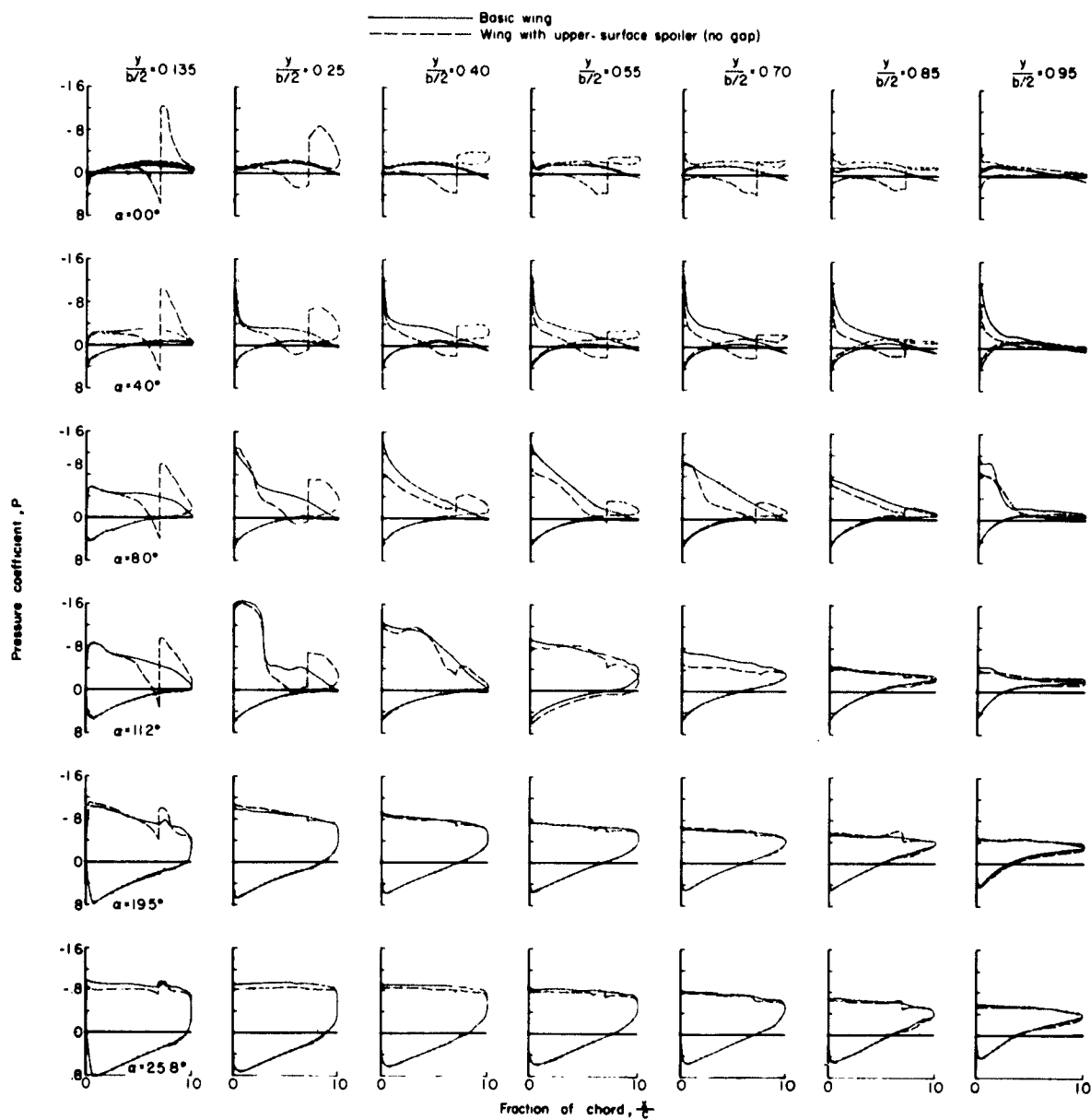
(b)  $M = 0.80$ .

Figure 10.- Continued.

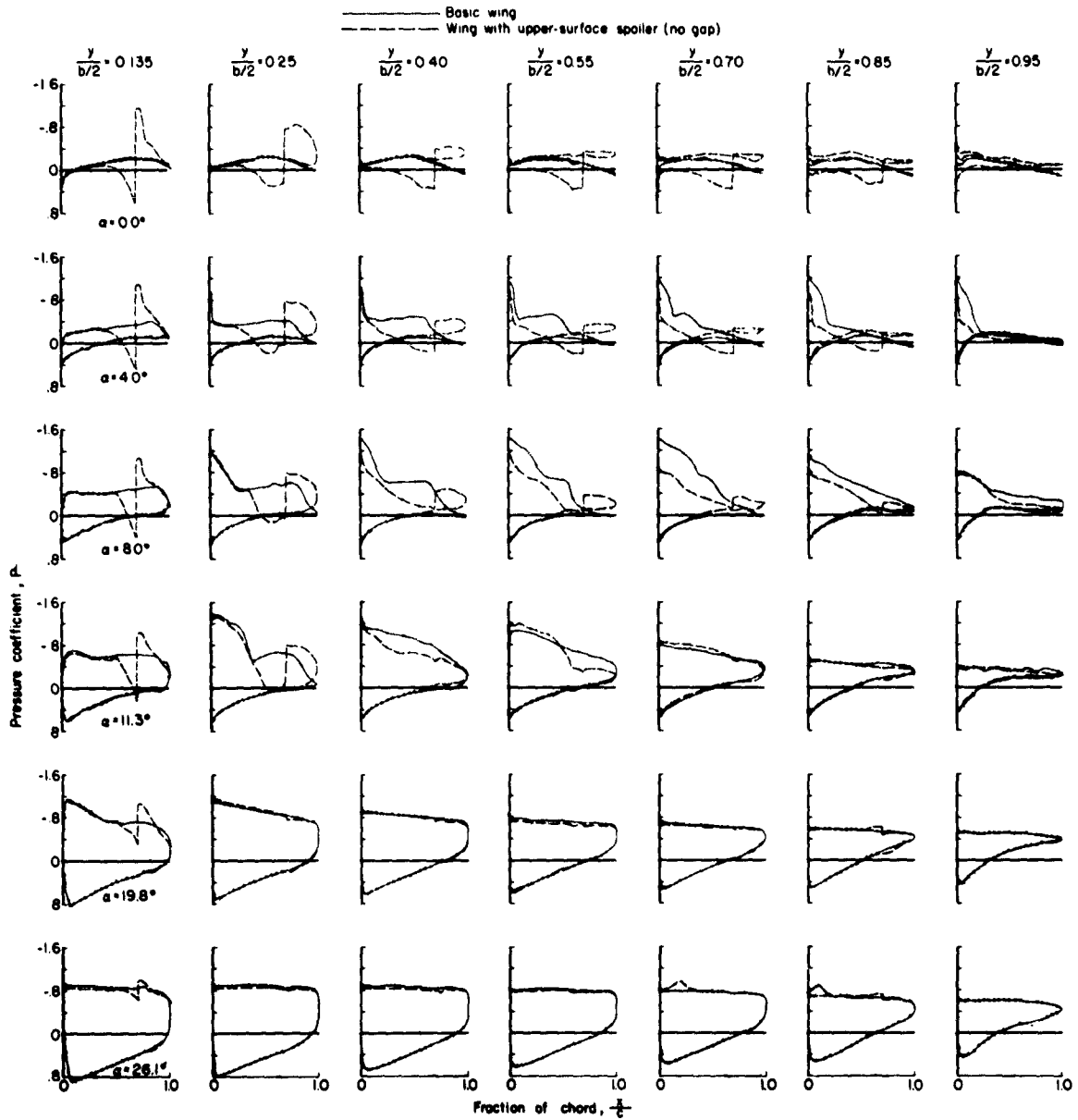
(c)  $M = 0.90$ .

Figure 10.- Continued.

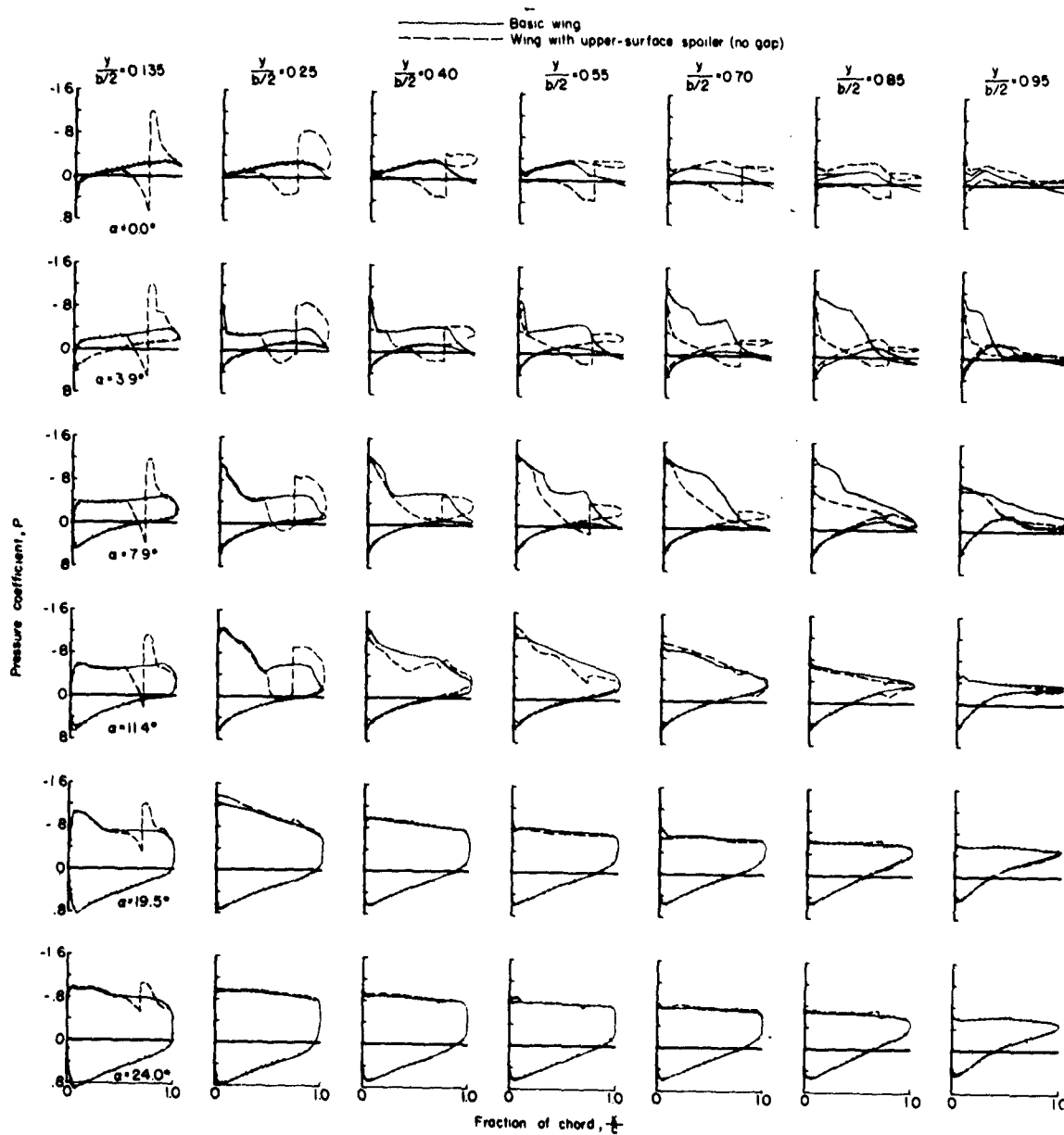
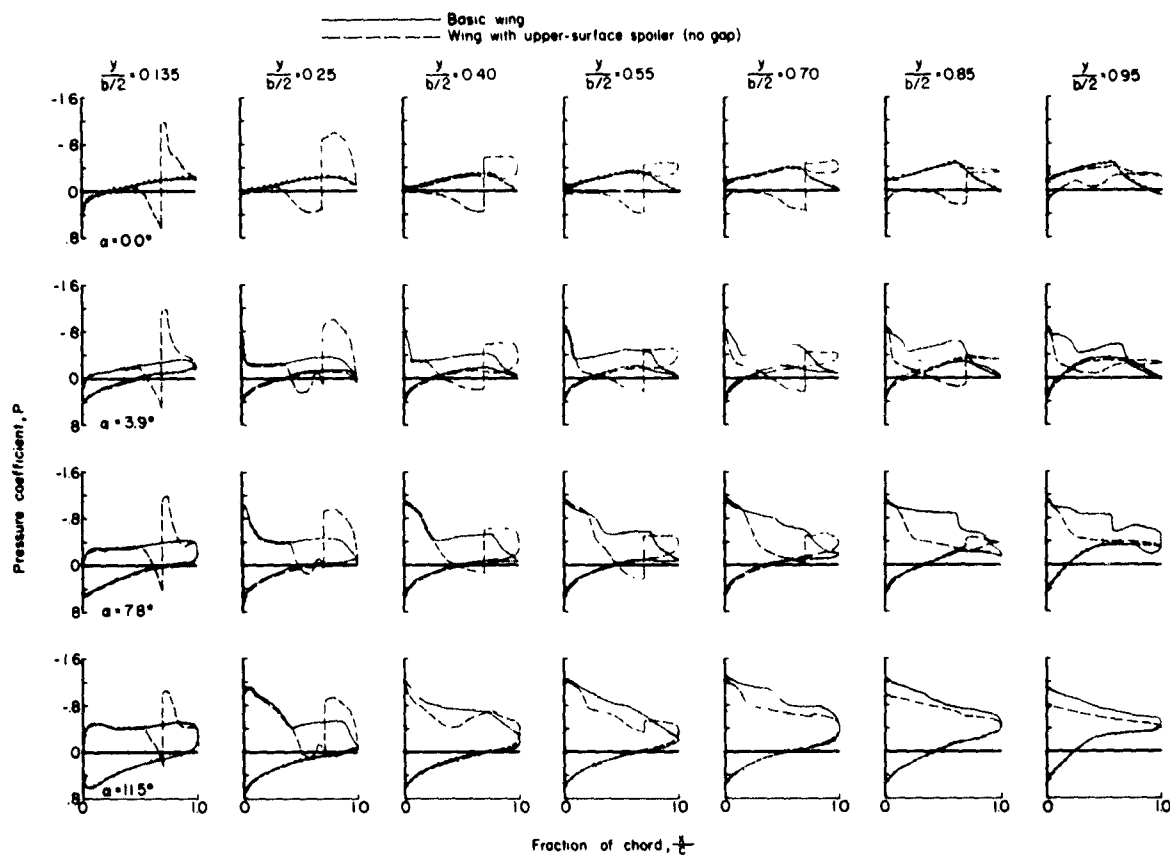
(d)  $M = 0.94$ .

Figure 10.- Continued.



(e)  $M = 1.00$ .

Figure 10.- Concluded.

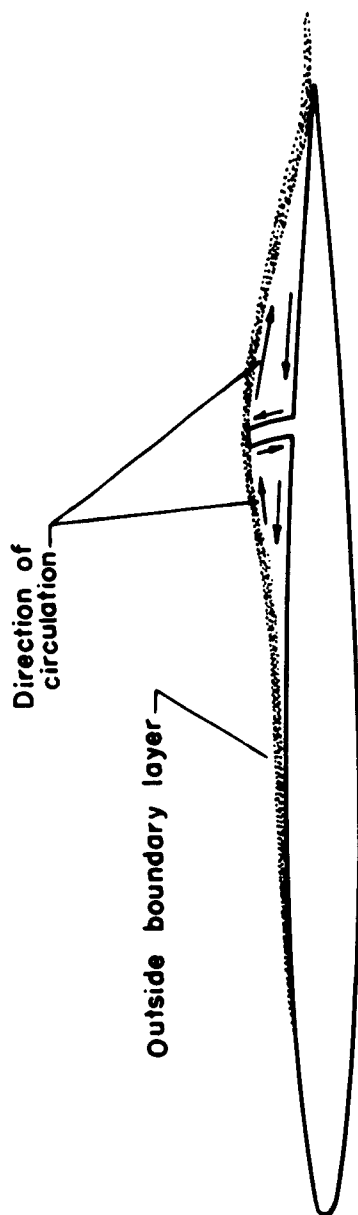


Figure 11.- Concept of flow in the boundary layer at a typical wing-spoiler section for a Mach number of 0.60.

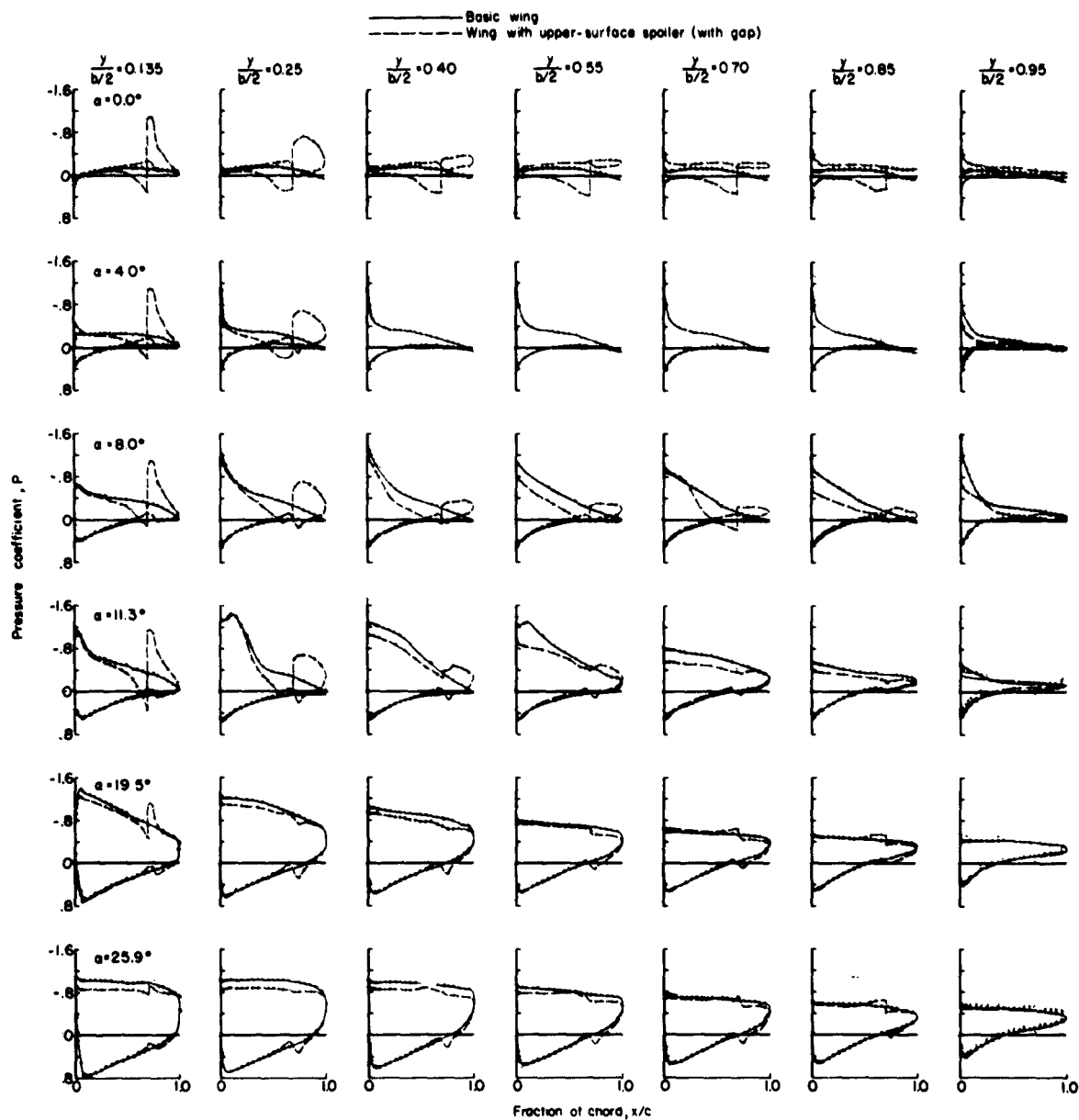
(a)  $M = 0.60$ .

Figure 12.- Chordwise pressure distributions on the wing; basic wing compared with the upper-surface spoiler (with gap) configuration.



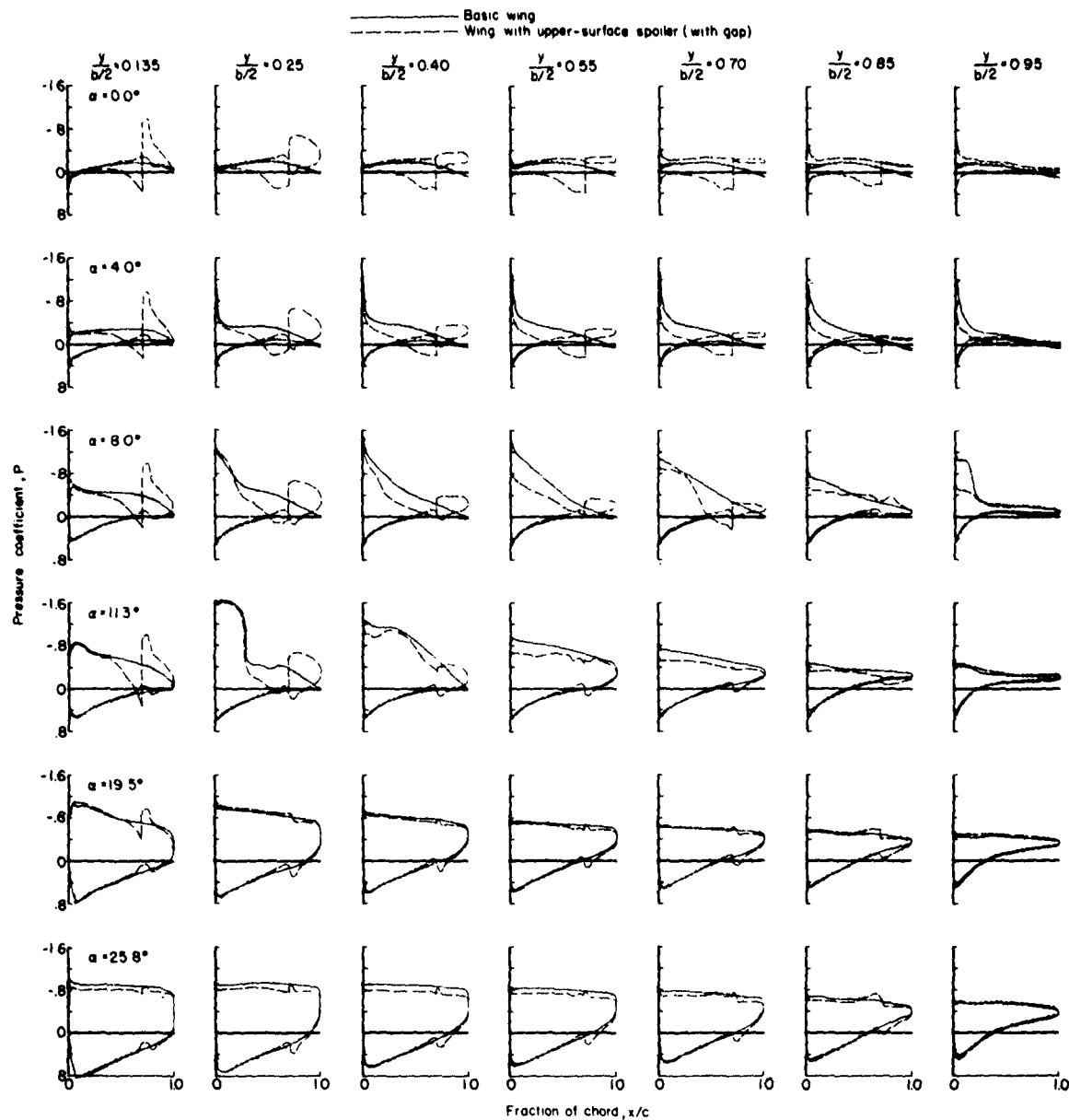
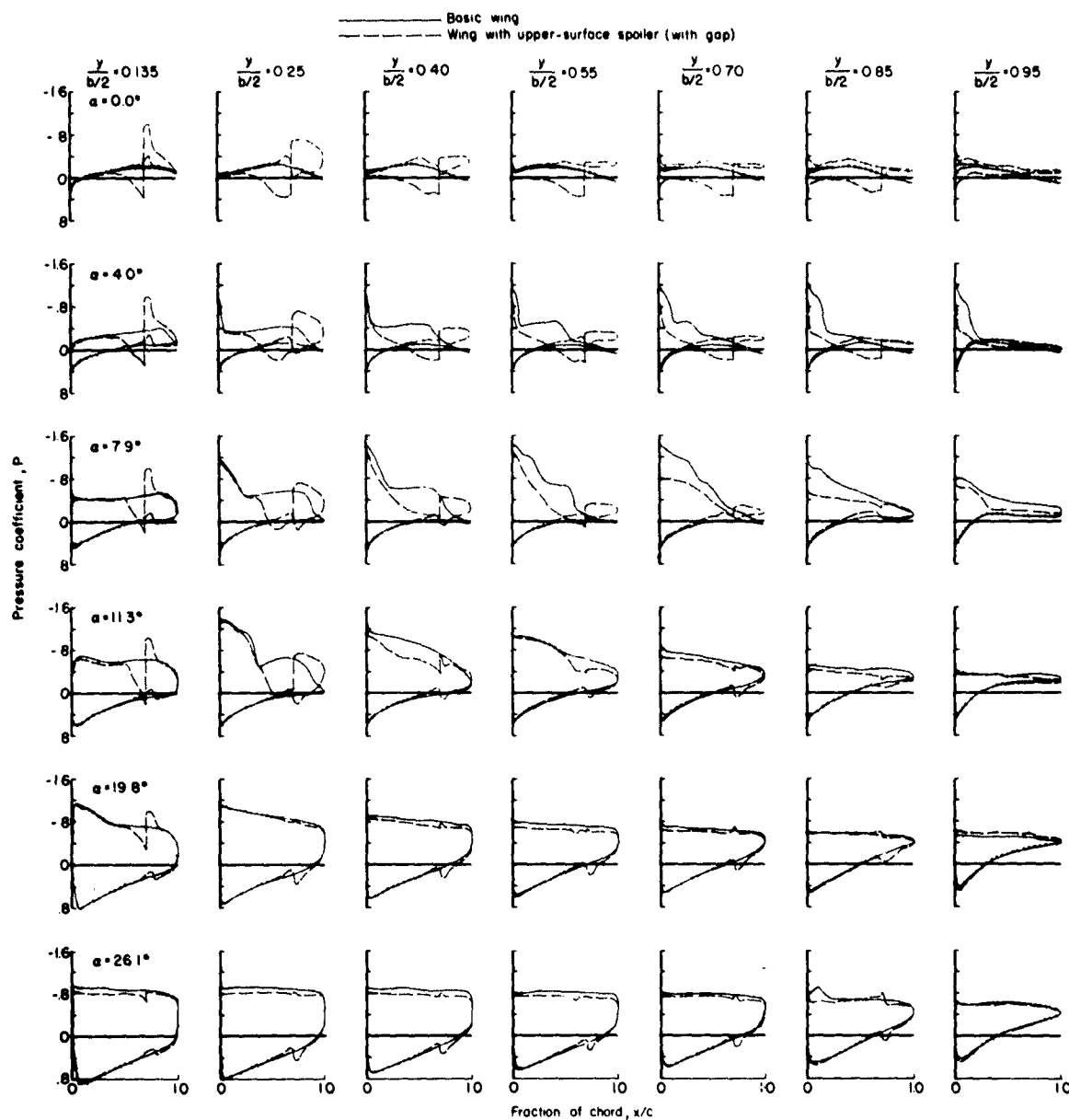
(b)  $M = 0.80$ .

Figure 12.- Continued.



(c)  $M = 0.90$ .

Figure 12.- Continued.

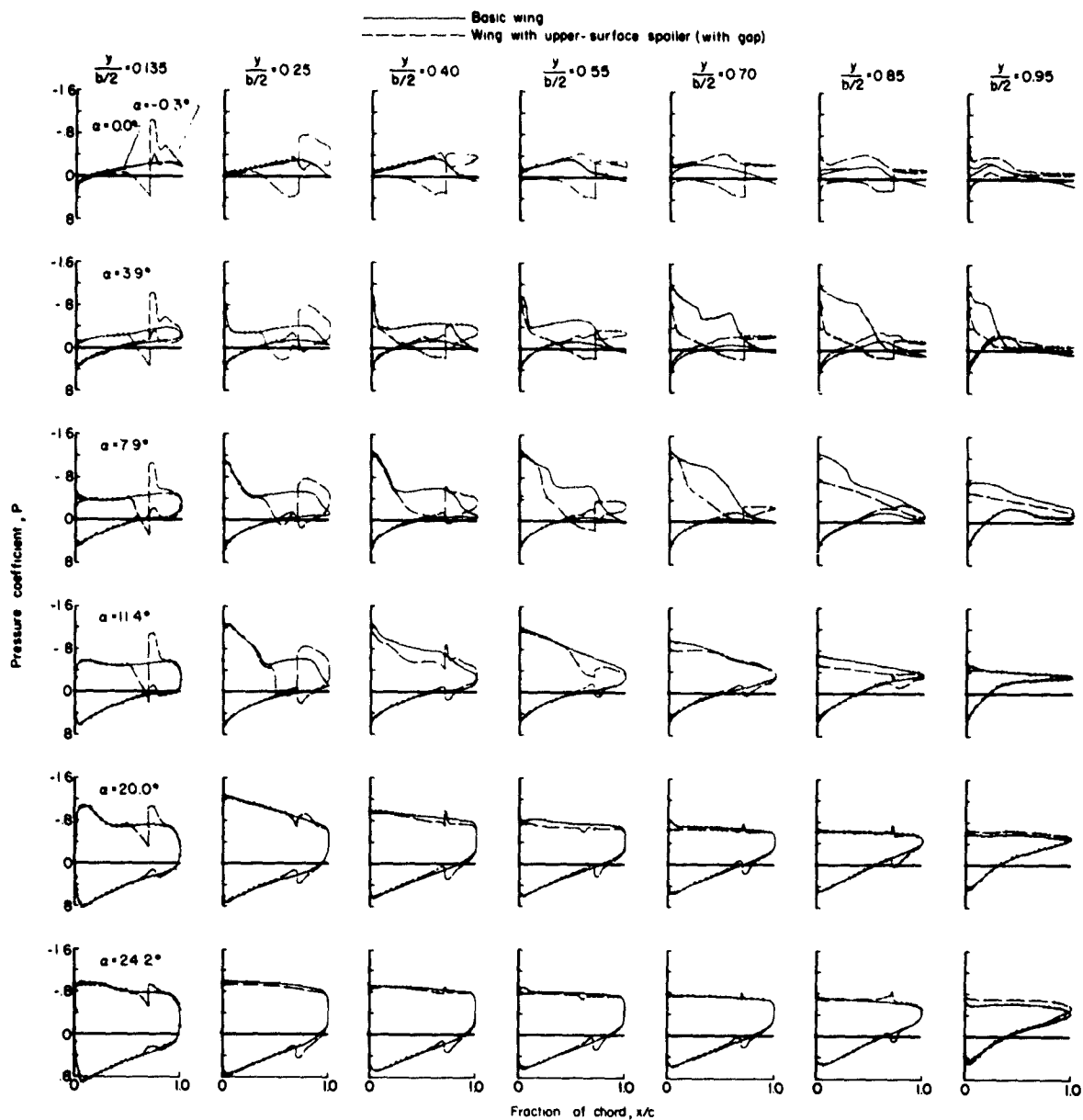
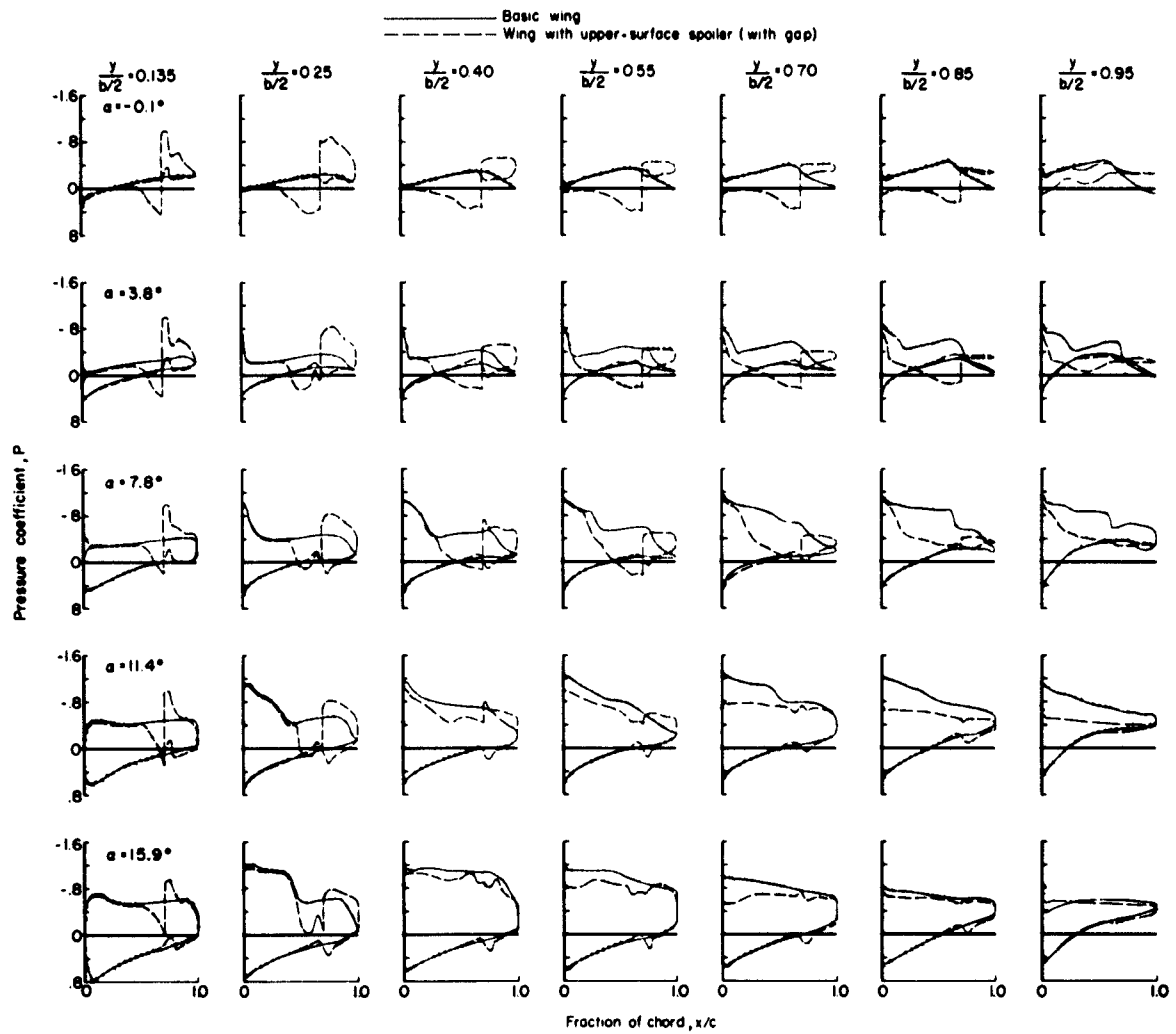
(d)  $M = 0.94$ .

Figure 12.- Continued.



(e)  $M = 1.00$ .

Figure 12.- Concluded.

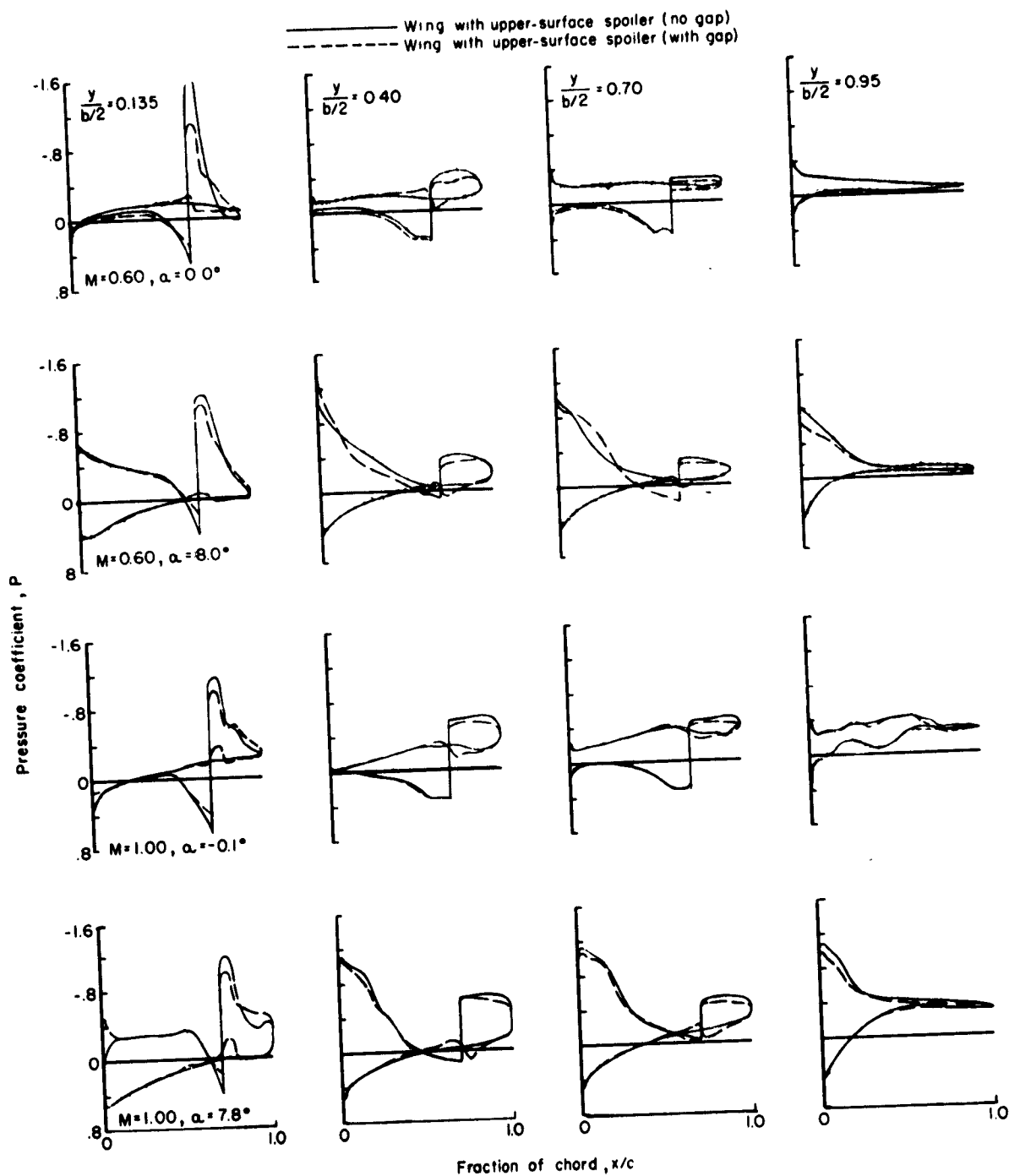


Figure 13.- Effect of wing gap behind an upper-surface spoiler on wing chordwise pressure distributions.

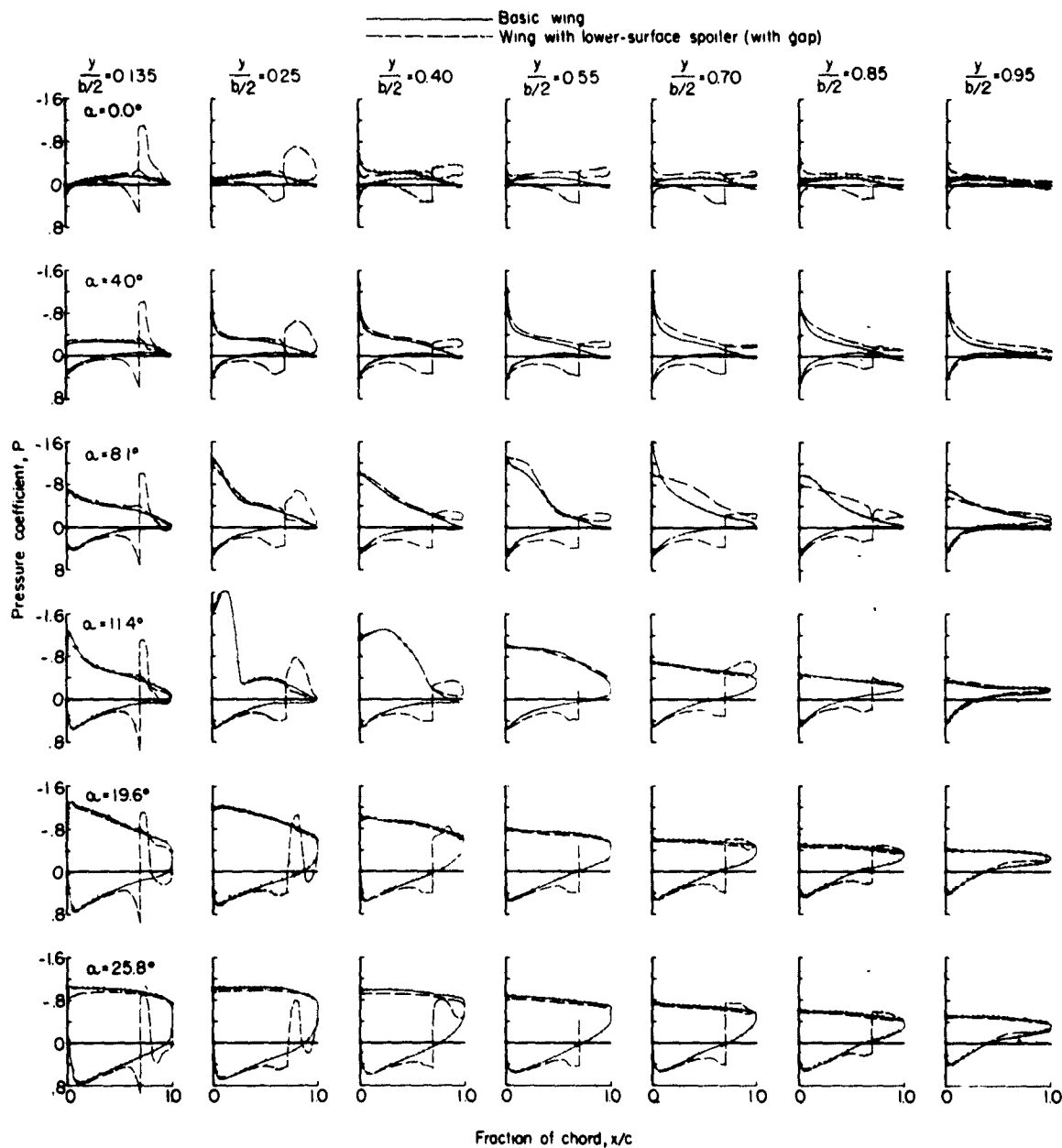
(a)  $M = 0.60$ .

Figure 14.- Chordwise pressure distributions on the wing; basic wing compared with the lower-surface spoiler (with gap) configuration.

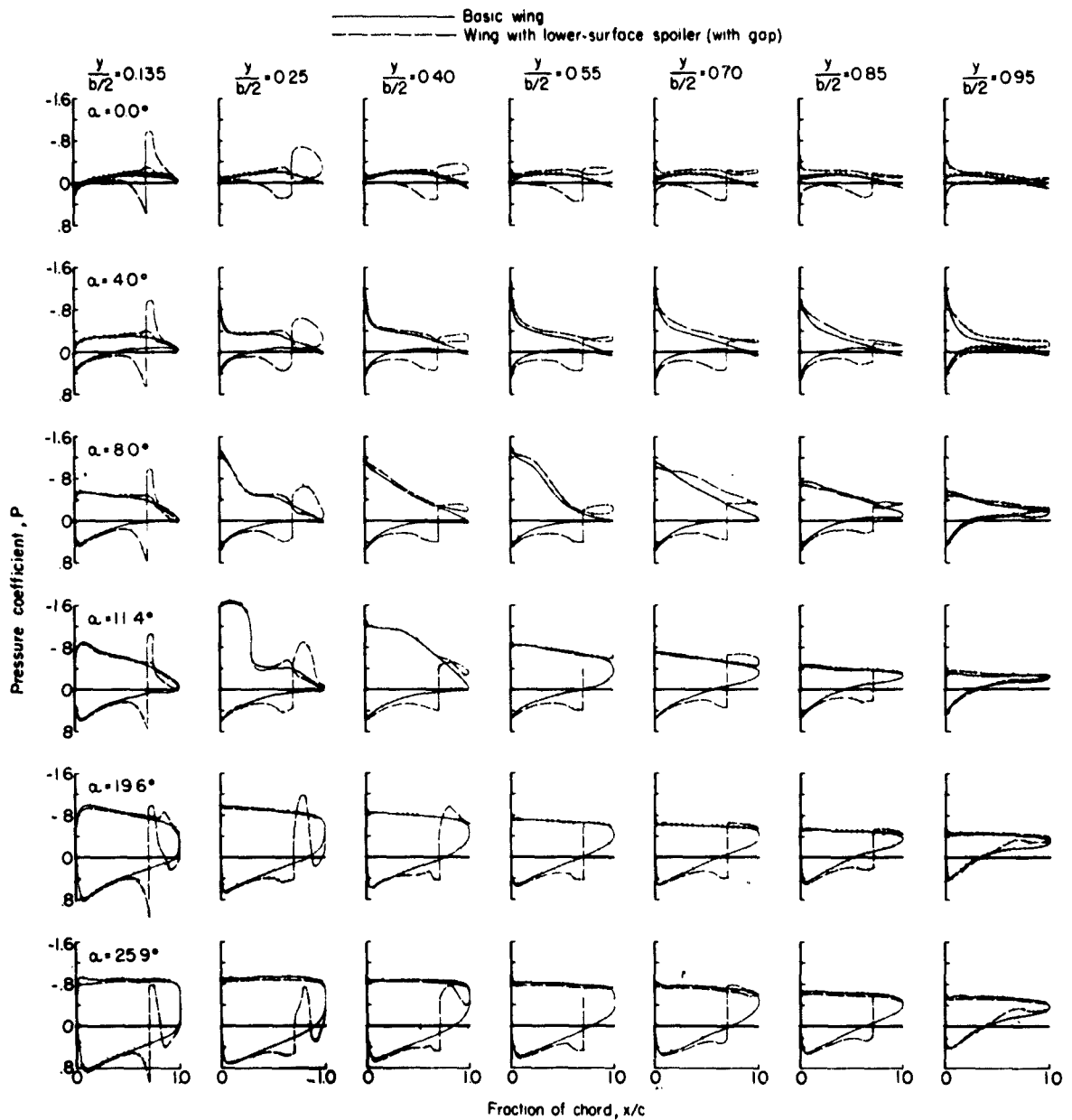
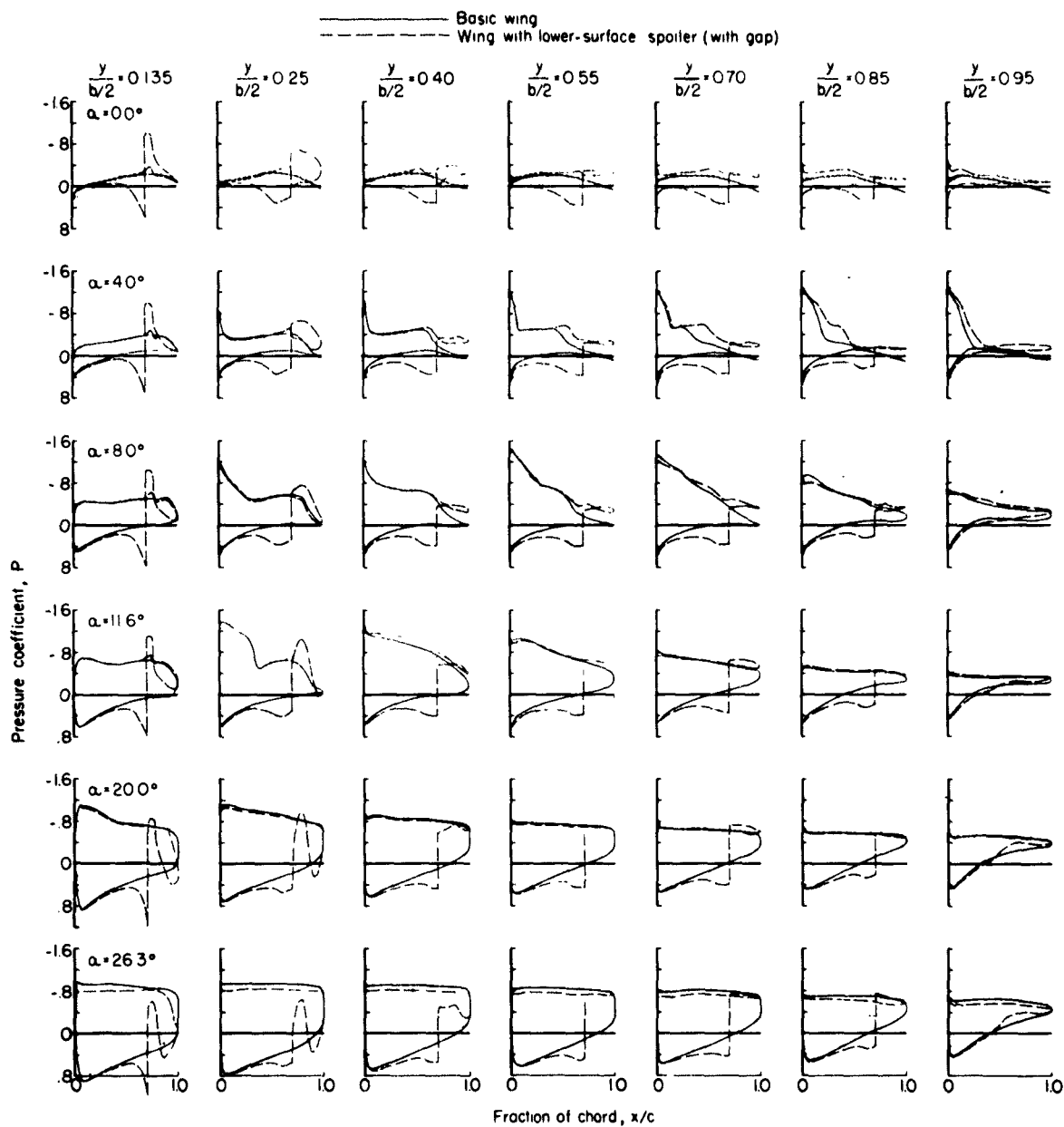
(b)  $M = 0.80$ .

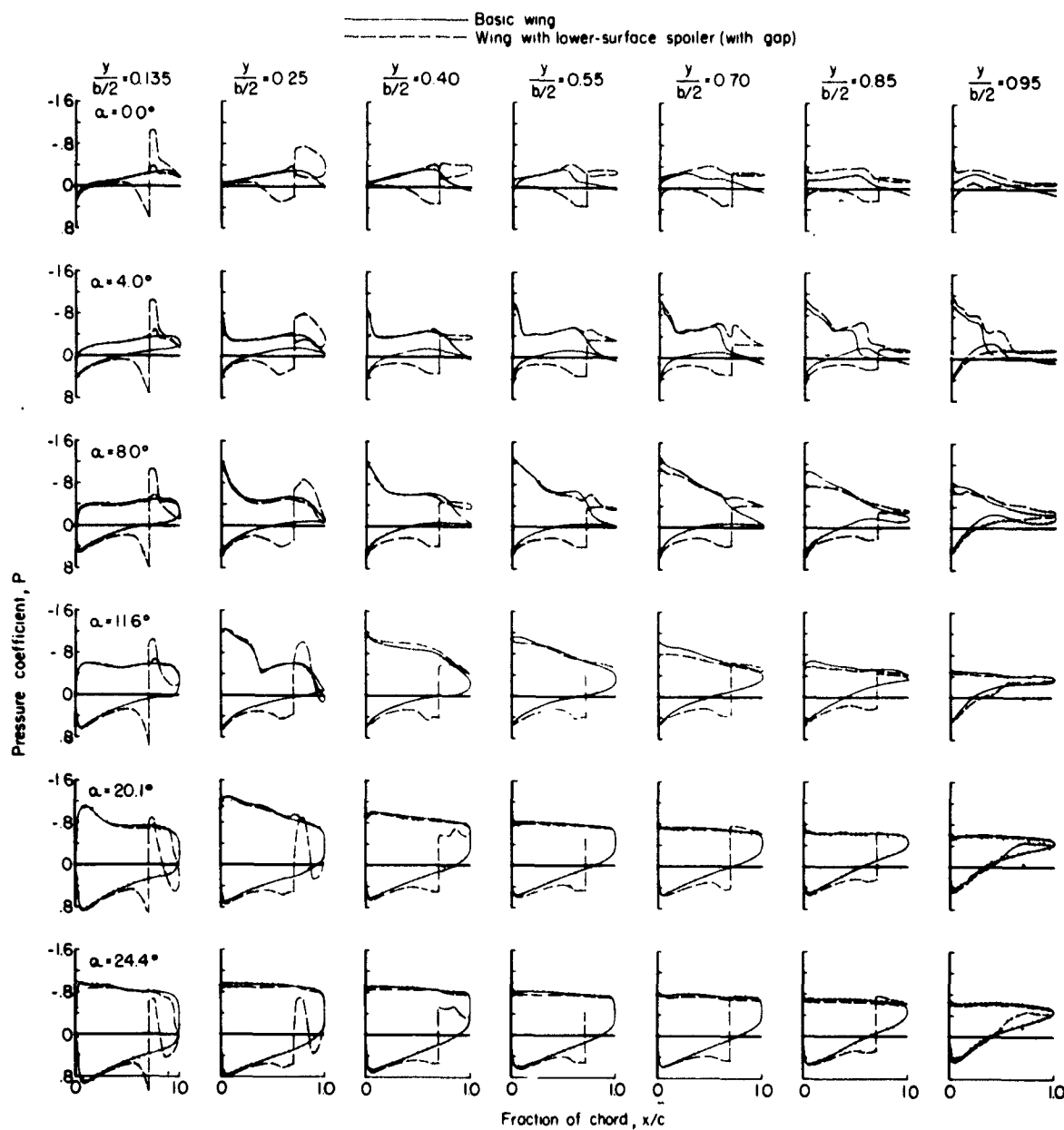
Figure 14.- Continued.



(c)  $M = 0.90$ .

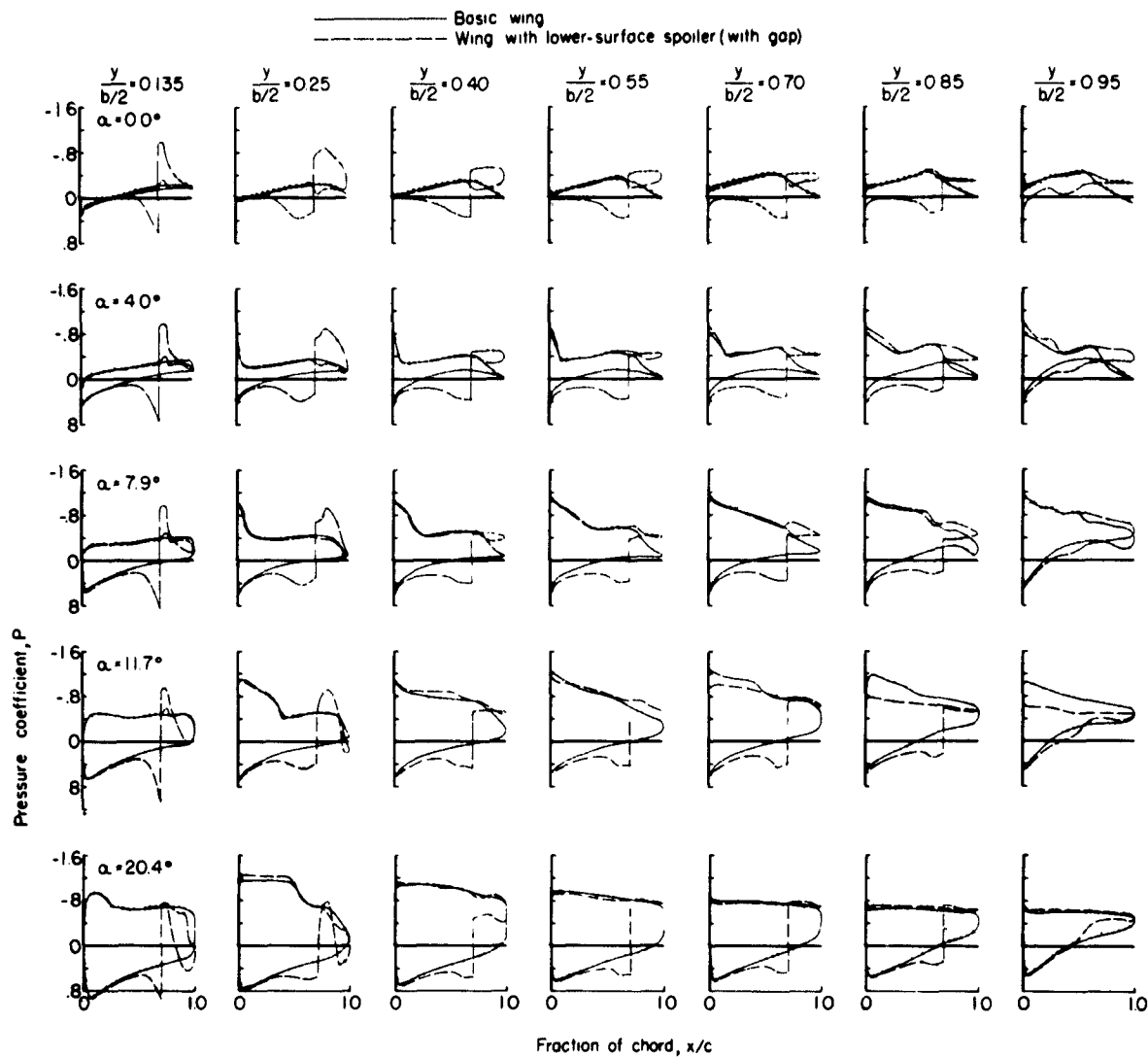
Figure 14.- Continued.





(d)  $M = 0.94$ .

Figure 14.- Continued.



(e)  $M = 1.00$ .

Figure 14.- Concluded.

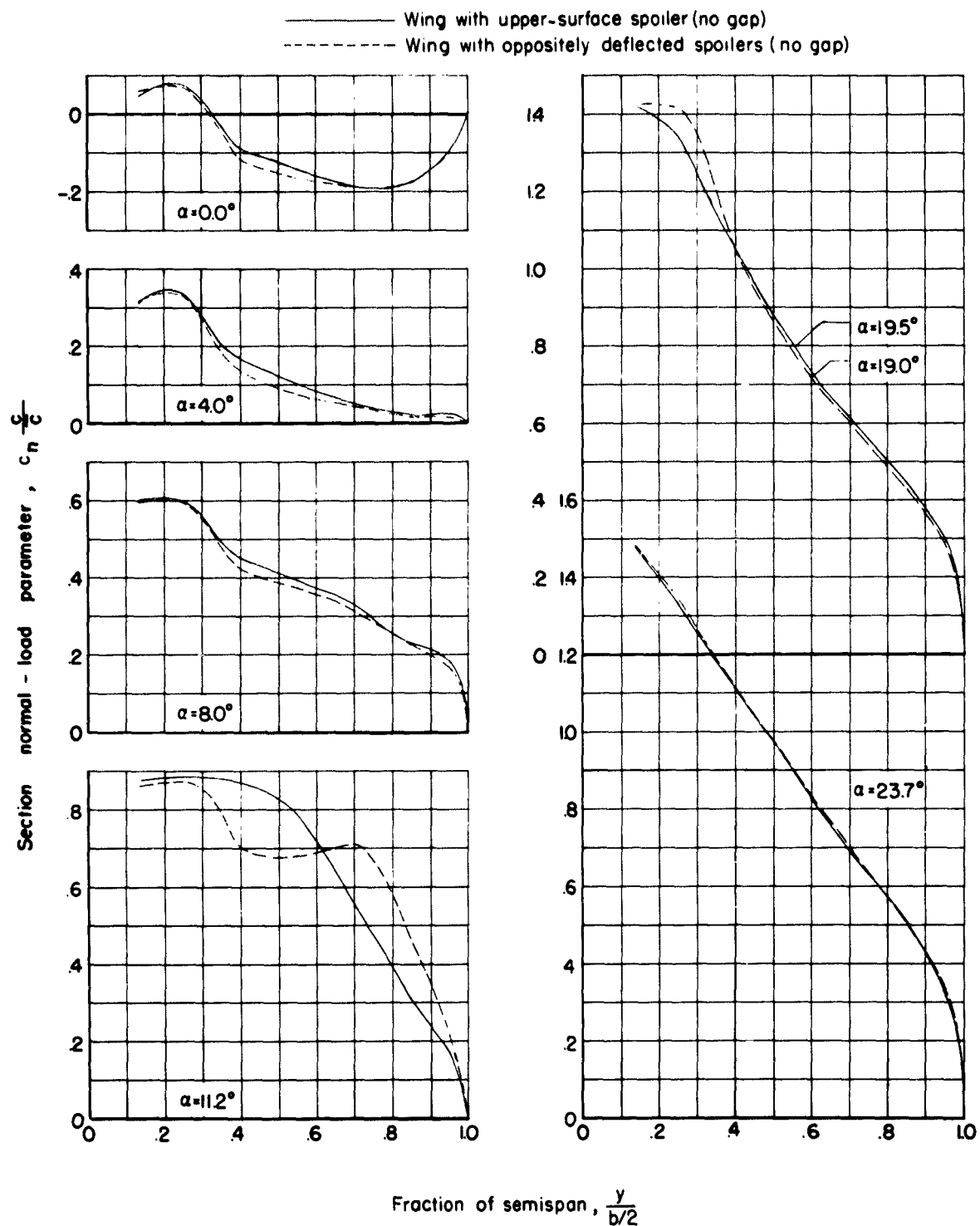
(a)  $M = 0.60$ .

Figure 15.- Effect of a lower-surface spoiler on the opposite wing semi-span load distribution for the upper-surface spoiler (no gap) configuration.

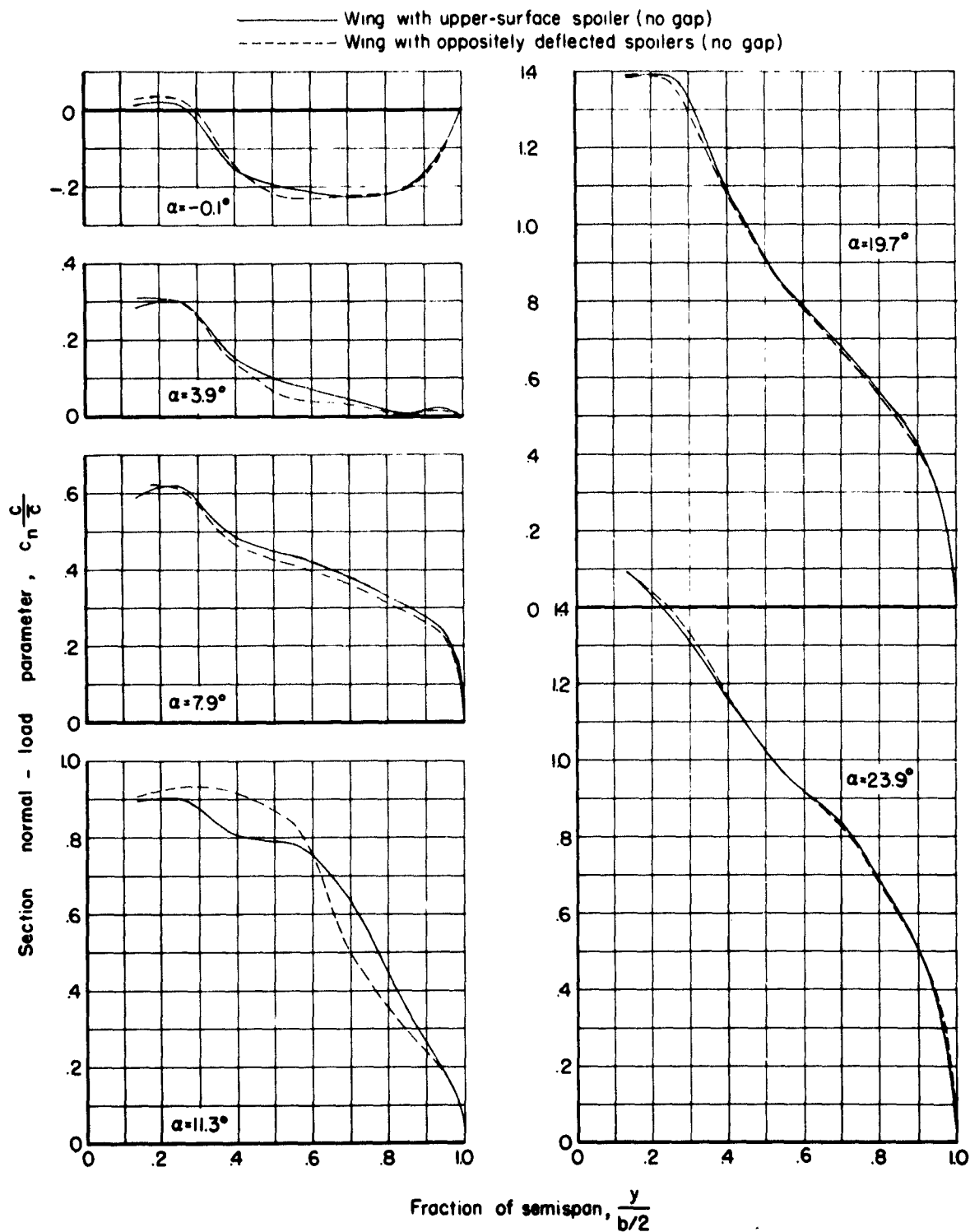
(b)  $M = 0.90$ .

Figure 15.- Continued.

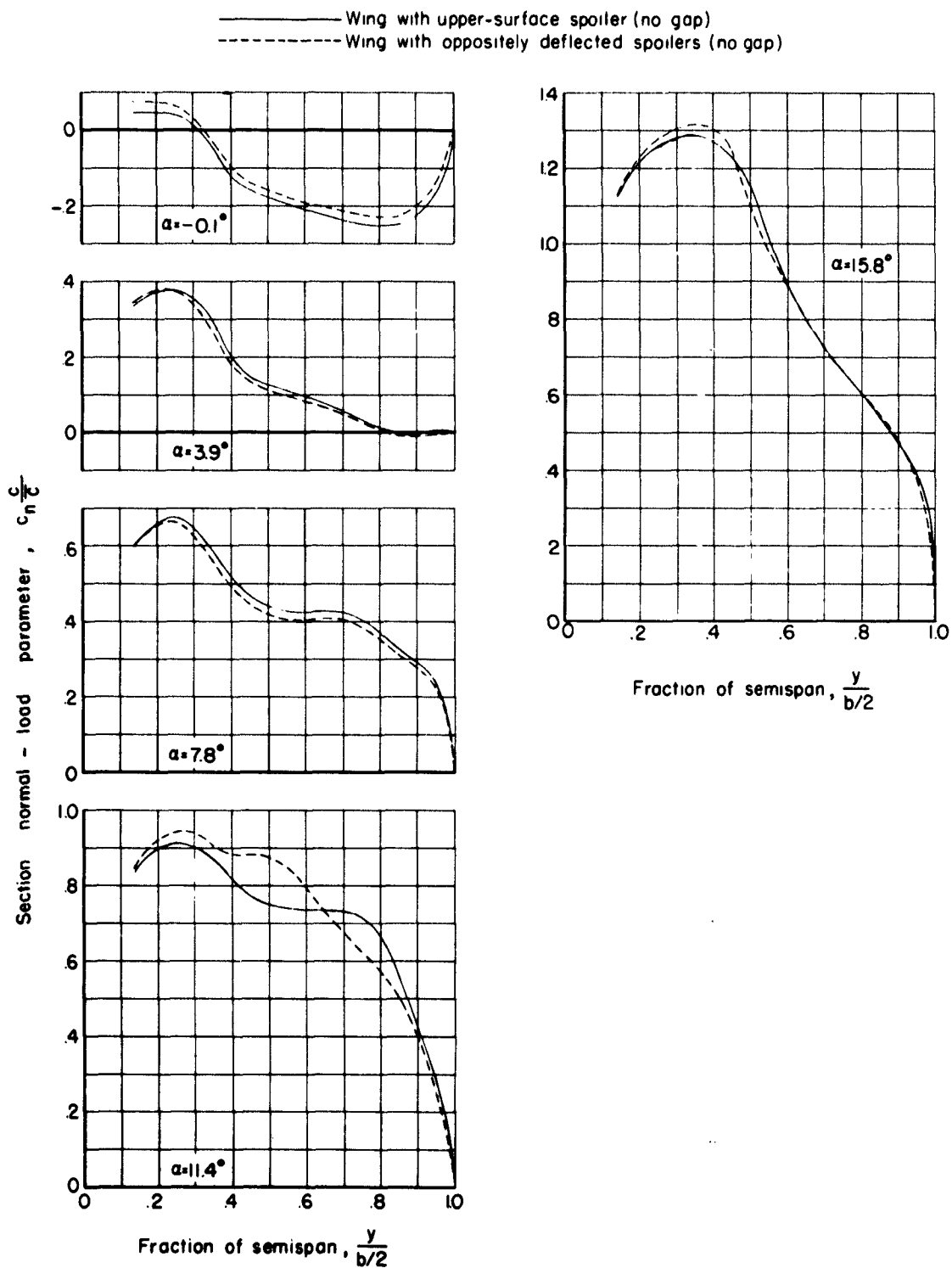
(c)  $M = 0.98$ .

Figure 15.- Concluded.

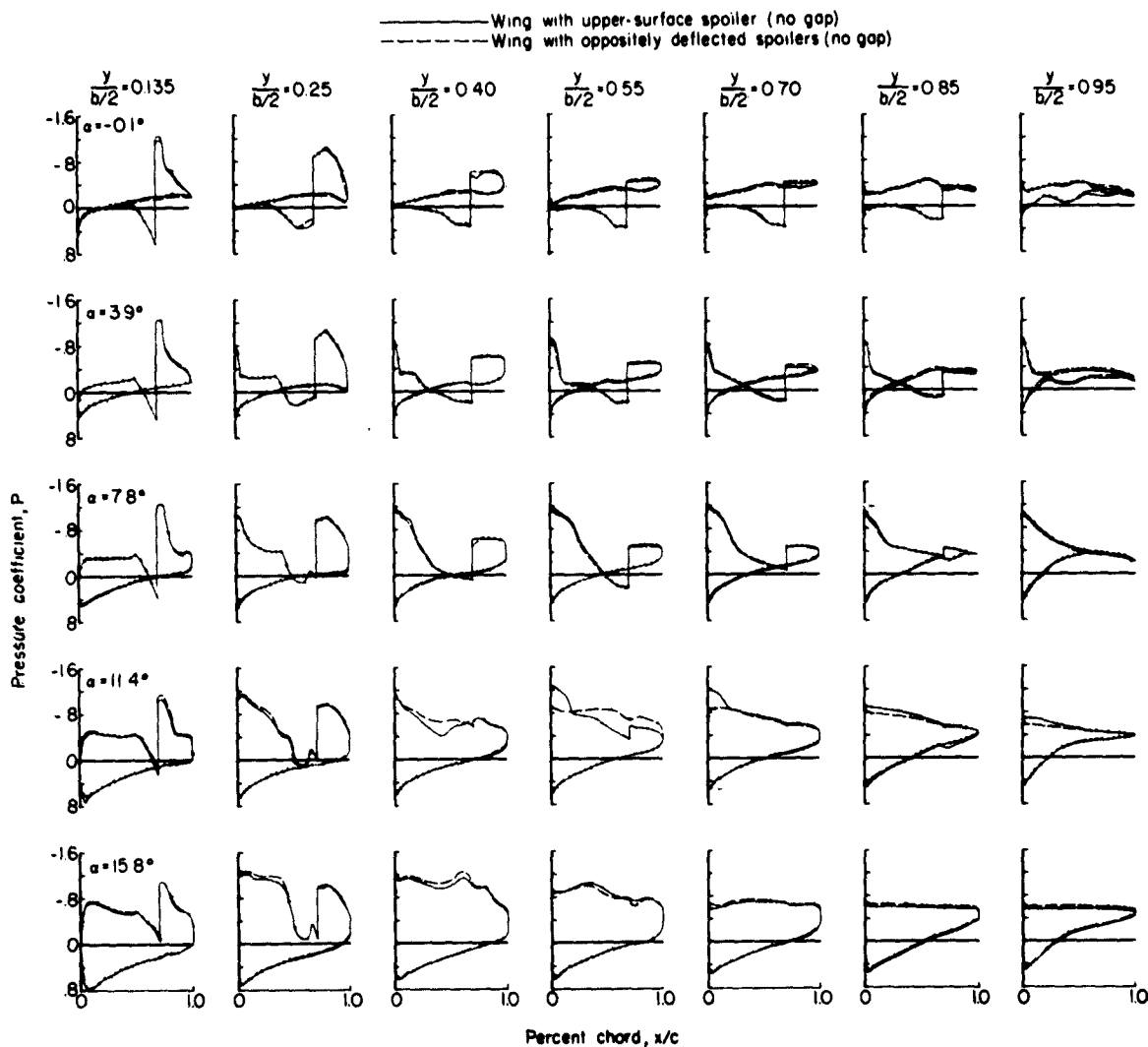
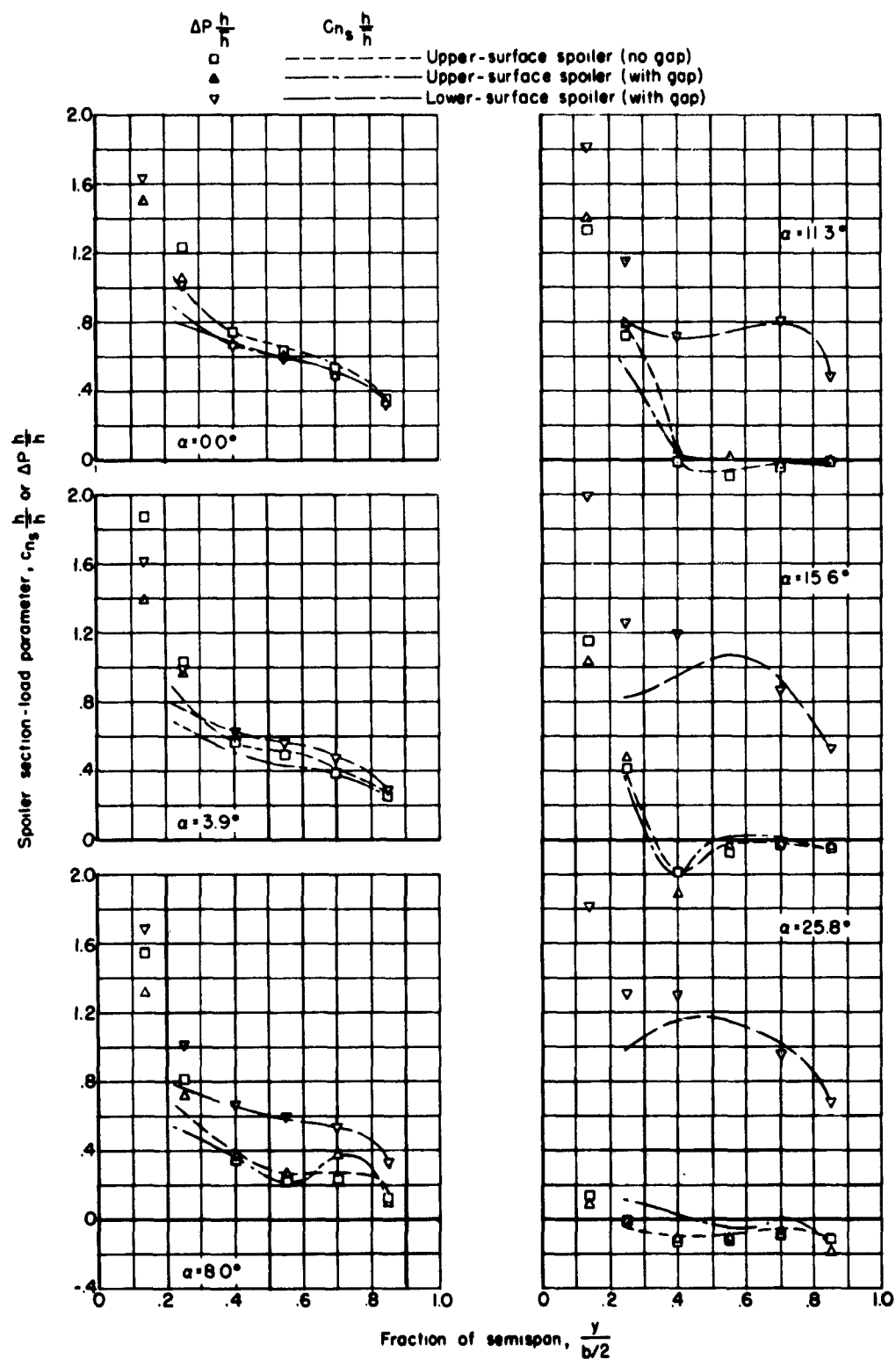


Figure 16.- Effect of a lower-surface spoiler on the opposite wing chord-wise pressure distributions for the upper-surface spoiler (no gap) configuration.  $M = 0.98$ .



(a)  $M = 0.60$ .

Figure 17.- Spoiler load distributions.

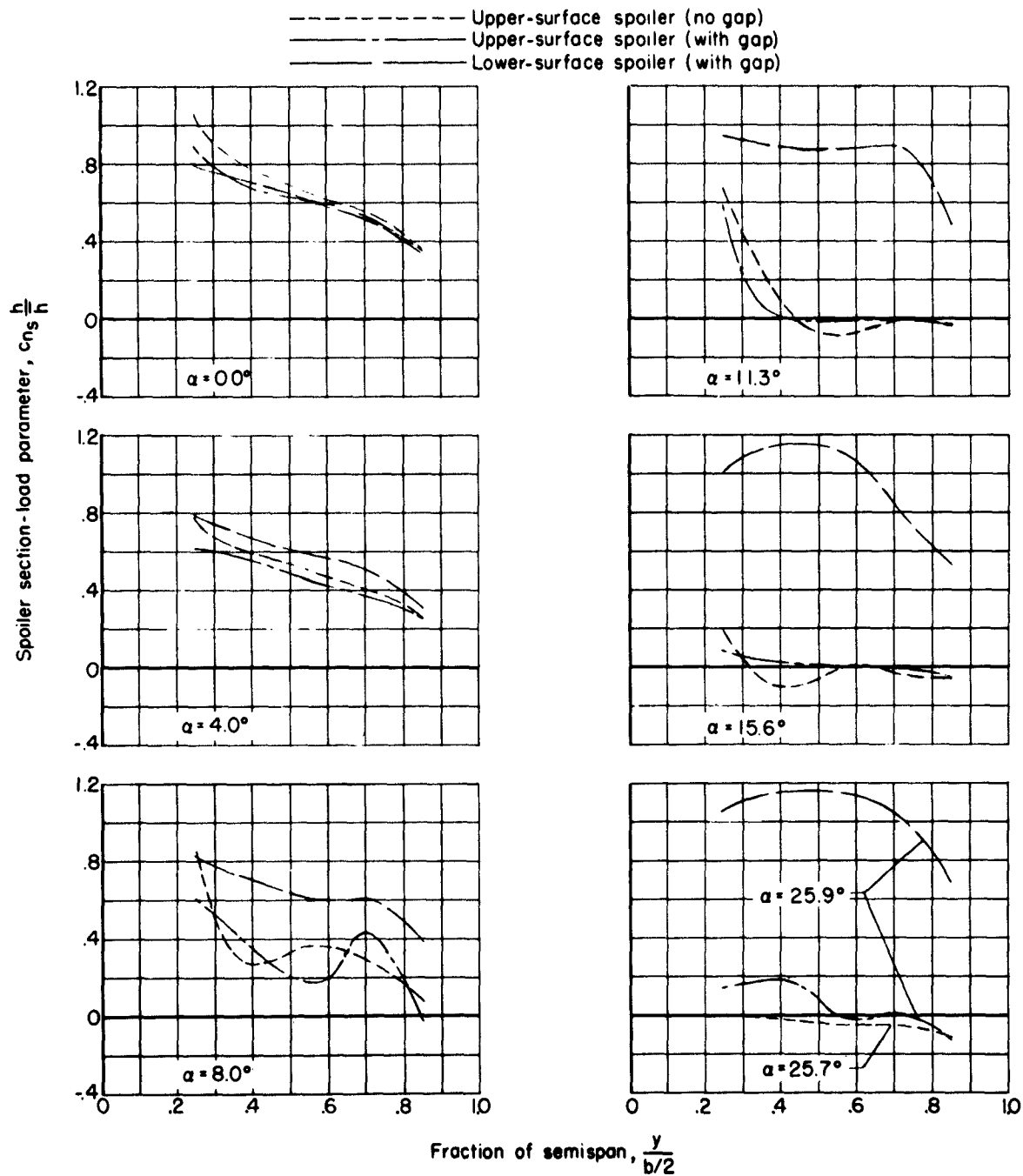
(b)  $M = 0.80$ .

Figure 17.- Continued.



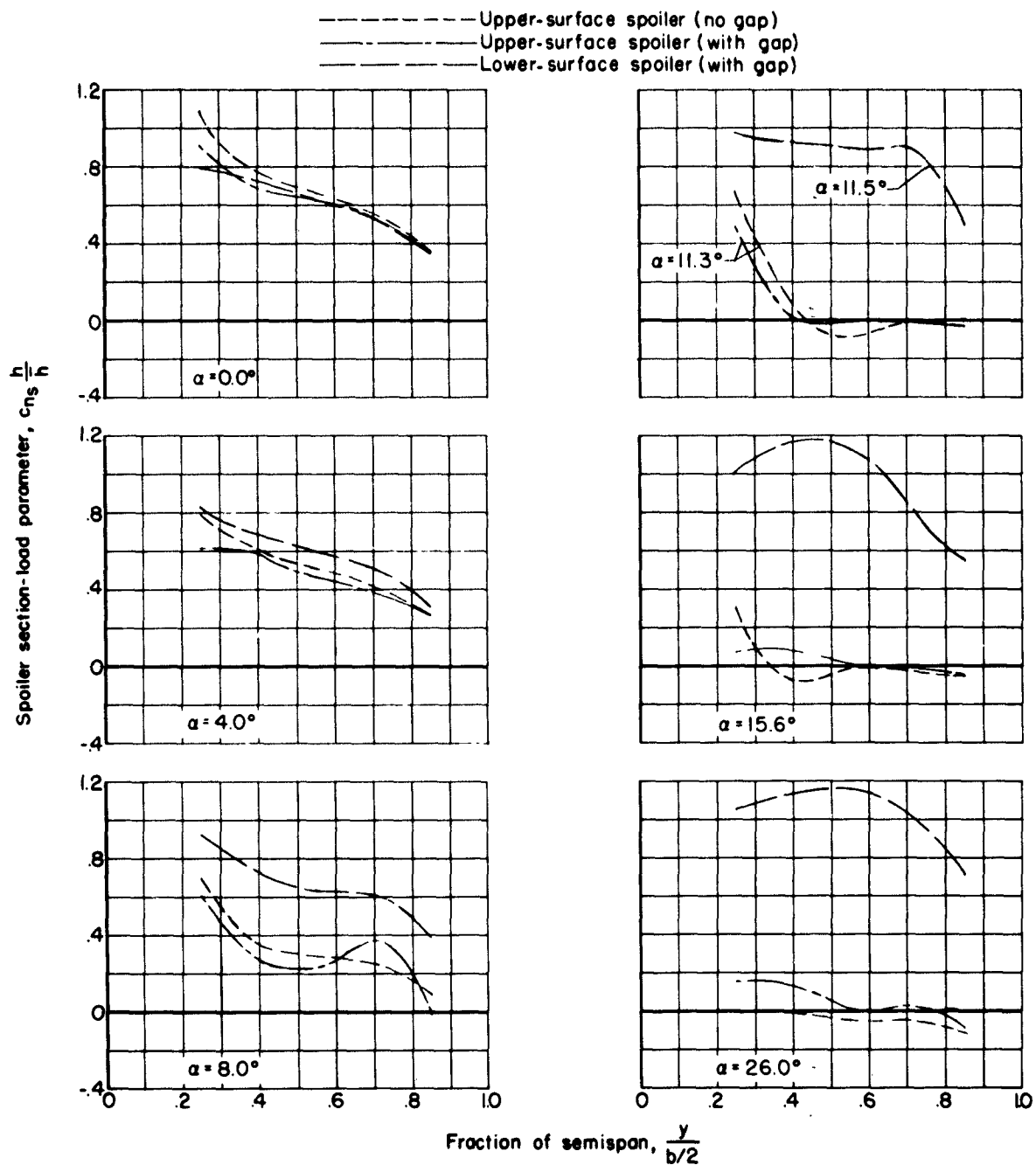
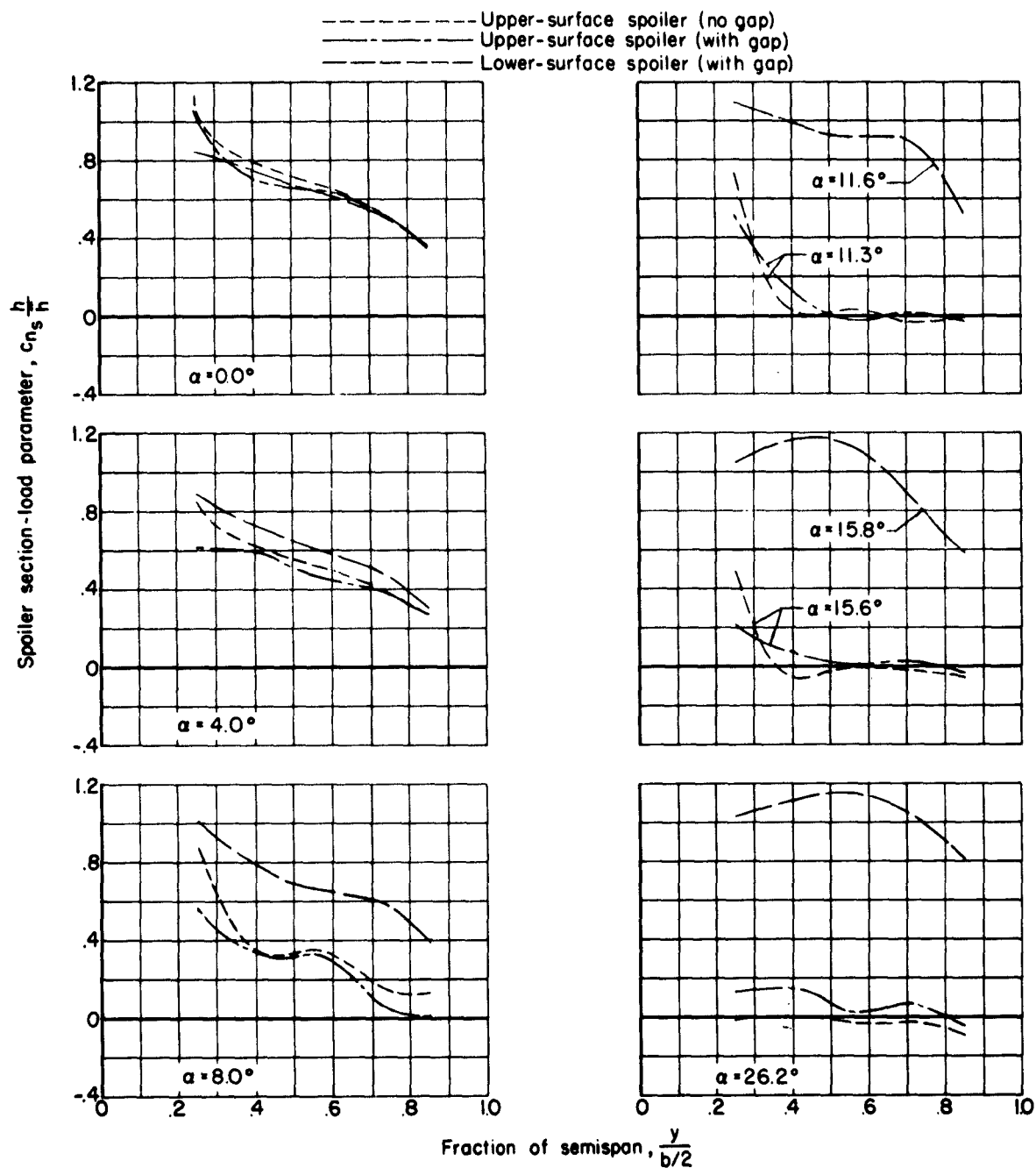
(c)  $M = 0.85$ .

Figure 17.- Continued.



(d)  $M = 0.90$ .

Figure 17.- Continued.

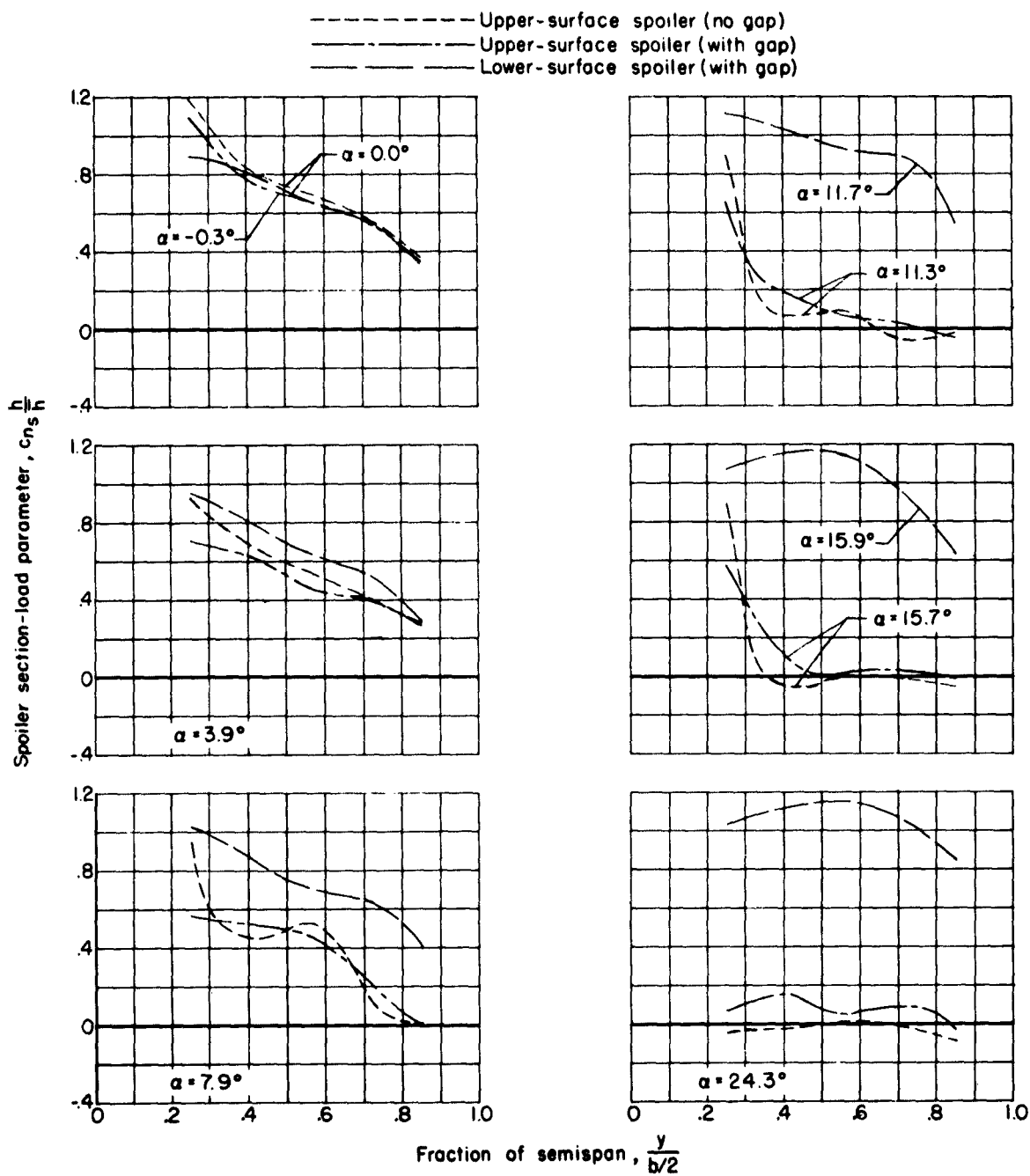


Figure 17.- Continued.

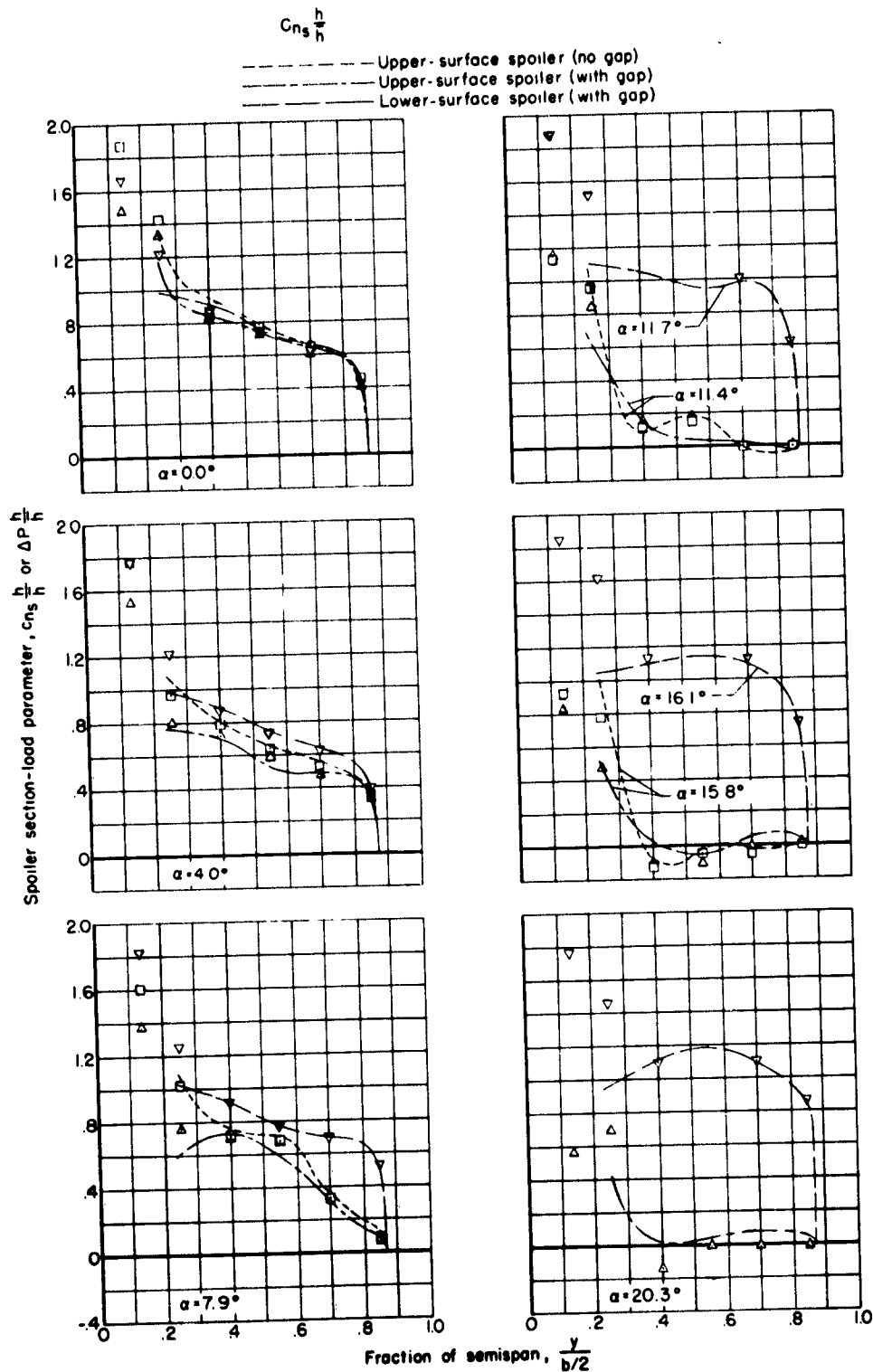
(f)  $M = 0.98$ .

Figure 17.- Continued.

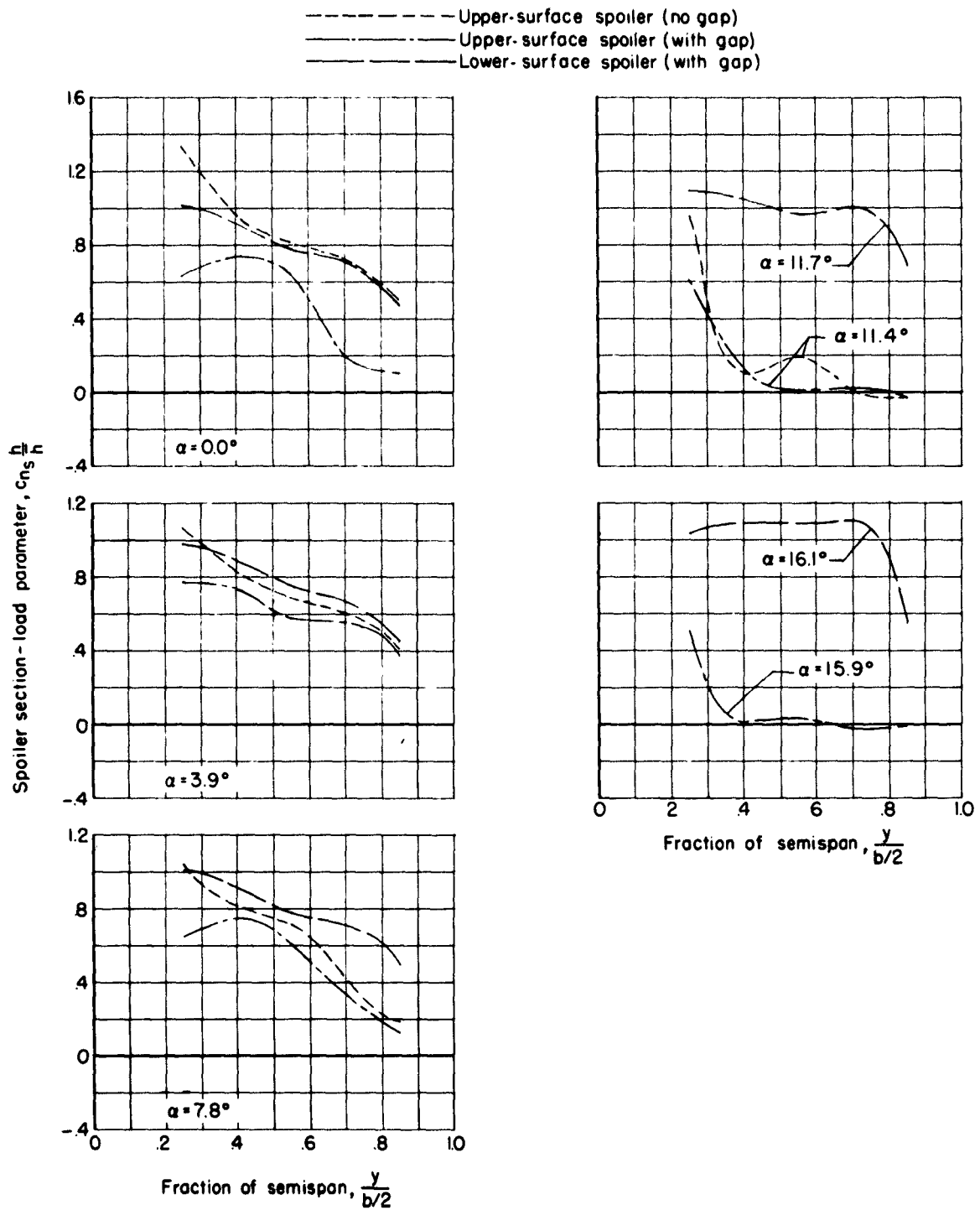
(g)  $M = 1.00$ .

Figure 17.- Continued.

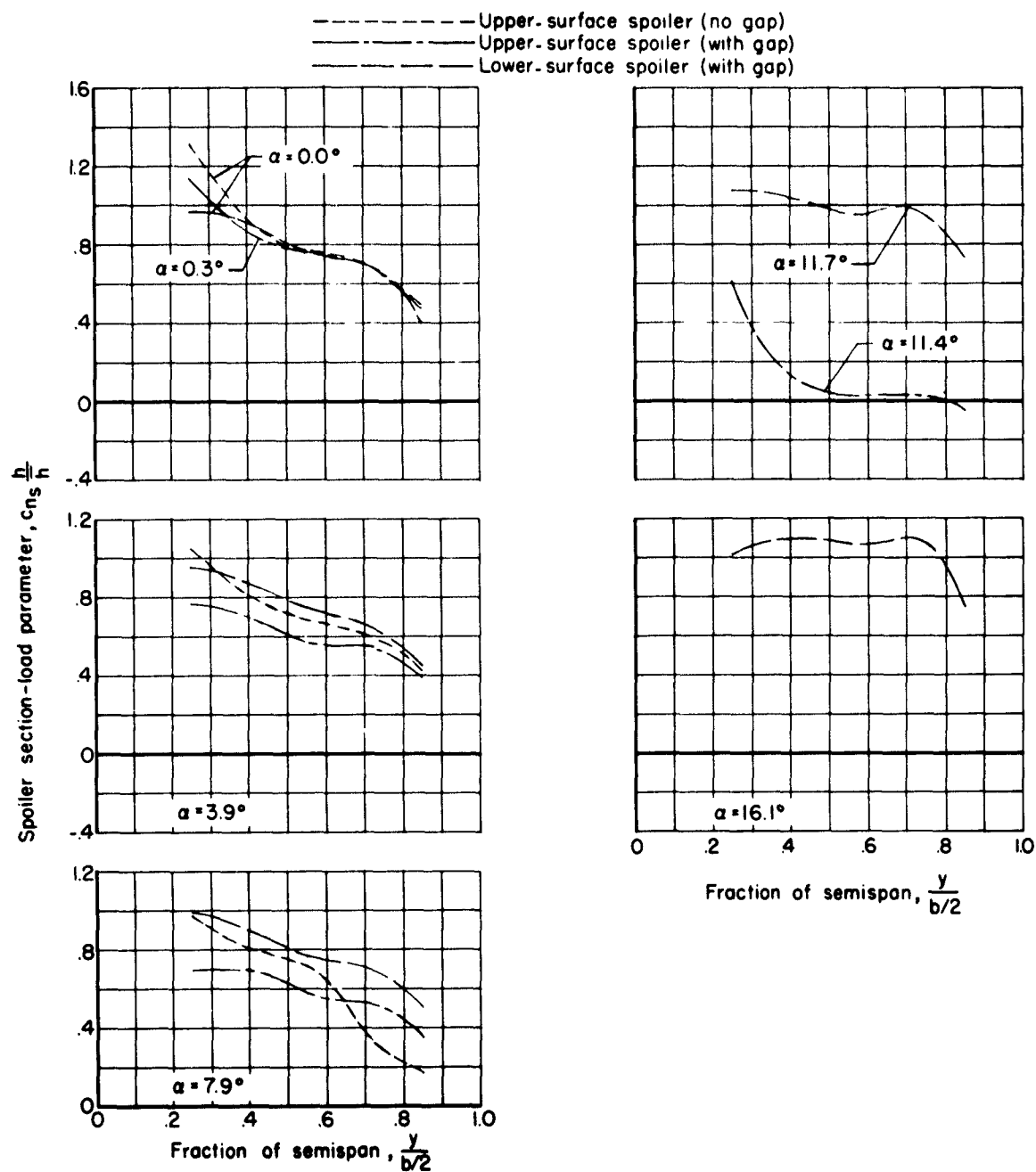


Figure 17.- Concluded.

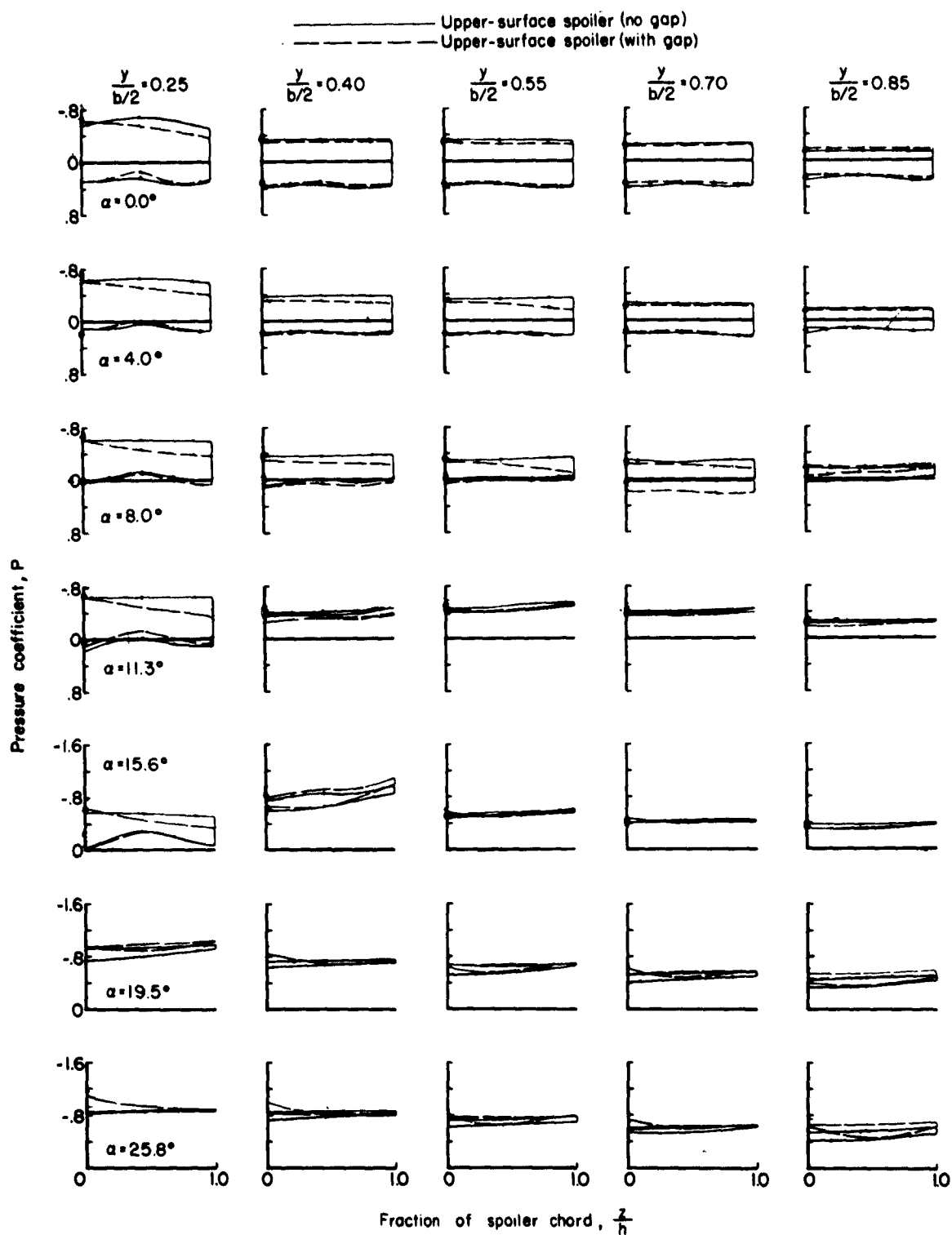
(a)  $M = 0.60$ .

Figure 18.- Section pressure distributions on the spoiler; upper-surface spoiler (with gap) compared with the upper-surface (no gap) configuration.

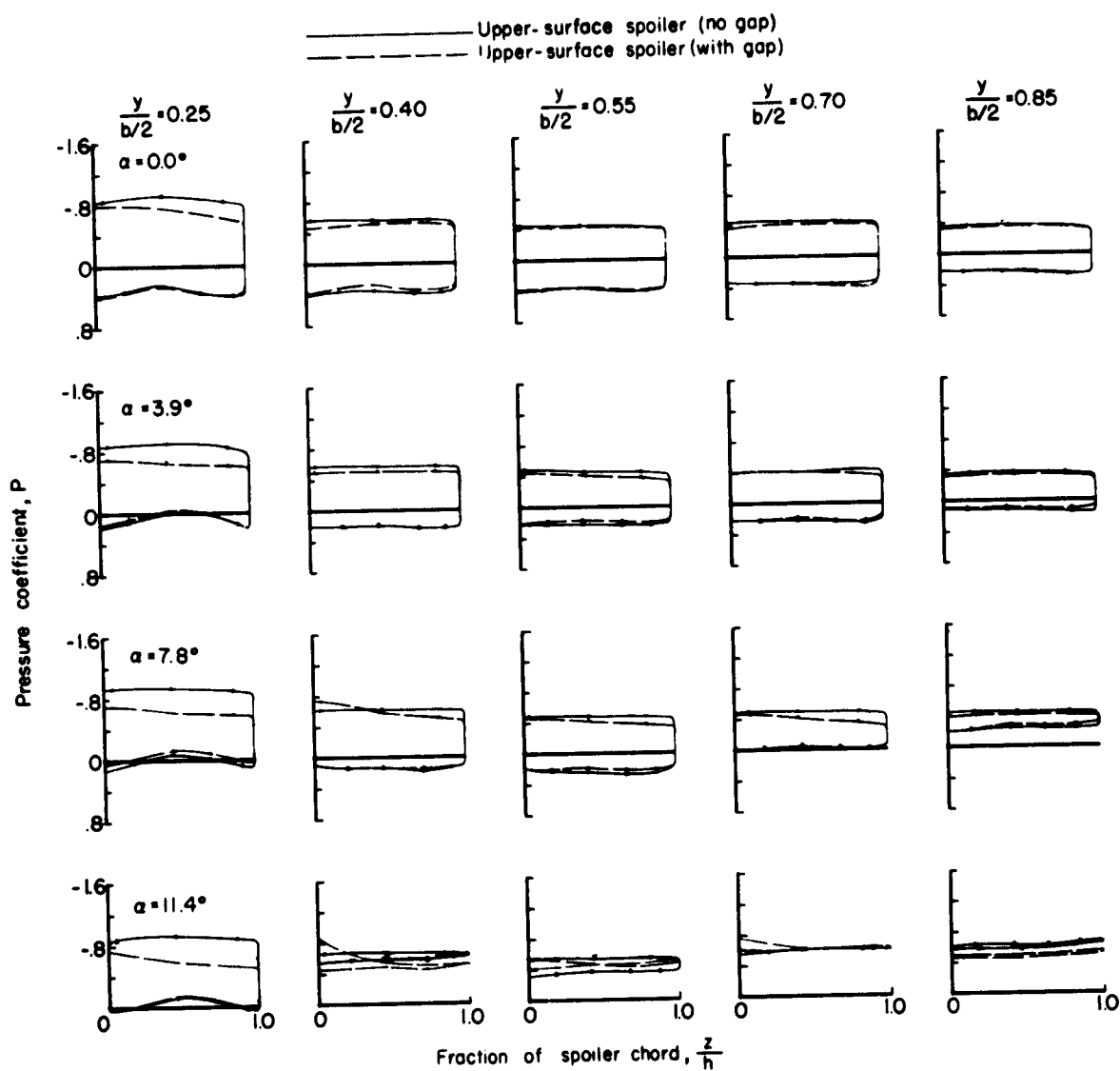
(b)  $M = 1.00$ .

Figure 18.- Concluded.



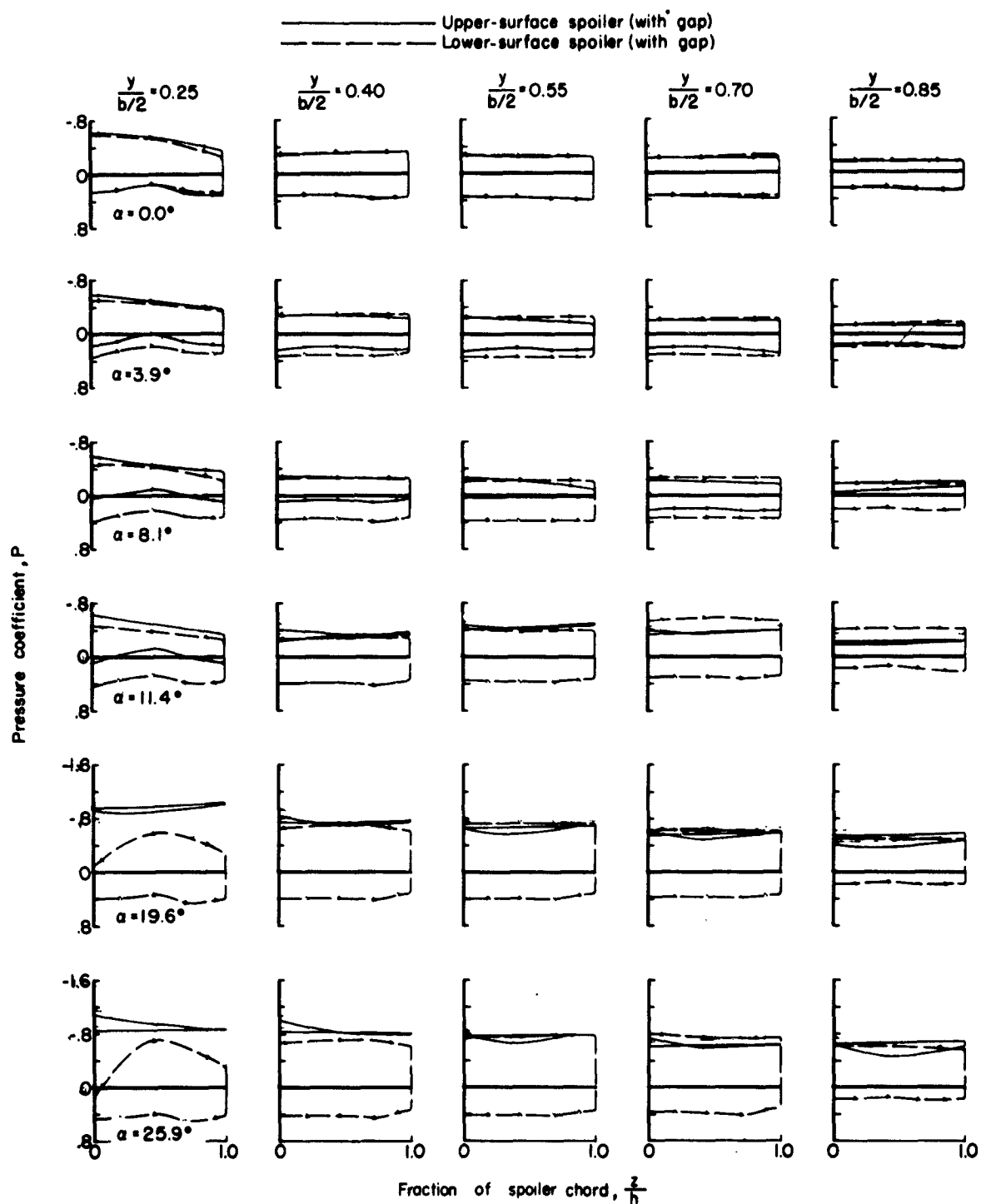


Figure 19.- Section pressure distributions on the spoiler; upper-surface spoiler (with gap) compared with the lower-surface spoiler (with gap) configuration.

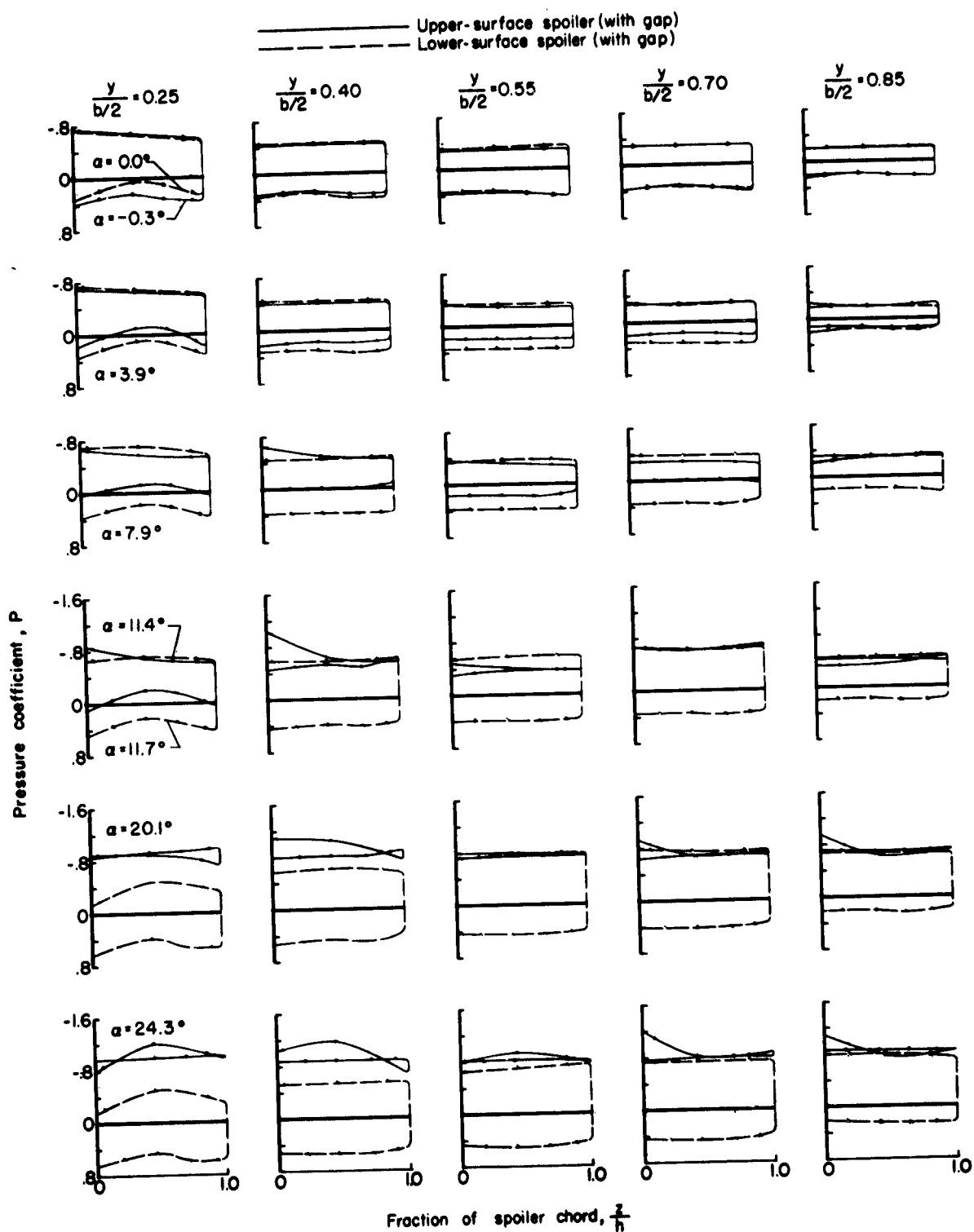
(b)  $M = 0.94$ .

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6. Loads, Aerodynamic - Wings (4.1.1.1)
- I. Hallissy, Joseph M., Jr.
- II. West, Franklin E., Jr.
- III. Liner, George
- IV. NACA RM L54C17a

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5.1 x 10<sup>6</sup>) to 1.03 (Reynolds number, 6.2 x 10<sup>6</sup>) for an angle-of-attack range that usually extended to 20° or higher. The effects of upper- and lower-surface spoilers on chordwise pressure distributions, wing normal forces, wing span-load distributions, and positions of center of pressure are shown. Spoiler load distributions are also shown.



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